BUNTON®

Parts & Maintenance Manual

BZT 3310 Zero Turn Riding Mower

Model No. 642300

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.

BUNTON

TEXTRON

TURF CARE AND SPECIALTY PRODUCTS

Part No. 2258005 REV01

IMPORTANT MESSAGE

Thank you for purchasing this Bunton product. You have purchased a world class mowing product, one of the best designed and built anywhere.

This machine comes with an Operation and Safety Manual and a separate Setup, Parts and Maintenance Manual. The useful life and good service you receive from this machine depends to a large extent on how well you read and understand these manuals. Treat your machine properly, lubricate and adjust it as instructed, and it will give you many years of reliable service.

Your safe use of this Bunton product is one of our prime design objectives. Many safety features are built in, but we also rely on your good sense and care to achieve accident-free operation. For best protection, study the manuals thoroughly. Learn the proper operation of all controls. Observe all safety precautions. Follow all instructions and warnings completely. Do not remove or defeat any safety features. Make sure those who operate this machine are as well informed and careful in its use as you are.

See a Bunton dealer for any service or parts needed. Bunton service ensures that you continue to receive the best results possible from Bunton's products. You can trust Bunton replacement parts because they are manufactured with the same high precision and quality as the original parts.

Bunton designs and builds its equipment to serve many years in a safe and productive manner. For longest life, use this machine only as directed in the manuals, keep it in good repair and follow safety warnings and instructions. You'll always be glad you did.

Textron Turf Care And Specialty Products
One Bob Cat Lane
Johnson Creek, WI 53038-0469

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1.0 PRE-DELIVERY CHECKLIST

Product No.__ ***BZT 3310 Zero Turn Riding Mower***____ Serial No._____

Power Unit

Check;

- ❑ Wheel lug torque:
  - __ Drive Wheel Lug Bolt 100-120 ft. lb. (135-162 Nm)
  - __ Drive Wheel Hub Nut 40-50 ft. lb. (54-68 Nm)
- ❑ Tire Pressure should be:
  - __ Front 20-25 psi (110-138 kPa)
  - __ Rear 9-11 psi (55-69 kPa)
- ❑ Parking brake adjustment
- ❑ Hydro Linkage neutral centering adjustment (unit must not creep in neutral)
- ❑ Reverse speed adjustment
- ❑ Steering lever adjustments

Engine

Check;

- ❑ Engine oil level
- ❑ Engine coolant level
- ❑ Air cleaner element and connections
- ❑ Fan belt adjustments

Hydraulic System

Check;

- ❑ Hydraulic oil level
- ❑ Pinched or rubbing hoses
- ❑ Twisted or crimped hoses
- ❑ Oil Leaks
- ❑ Hydro tow valve is in "Drive" position - Both pumps

Electrical System

Check;

Interlock switch function

- __ Parking brake switch
- __ Implement control PTO switch
- __ Control Lever neutral lock
- __ Seat switch

- ❑ Dash panel gauges and warning lights
- ❑ Pinched or rubbing wires

Cutting Units

Check;

- ❑ Adjust cutting height to customer's specifications
- ❑ Blade mounting bolt torque
  - __ 75-85 ft. lb. (102 Nm)
- ❑ Front deck adjustment

Miscellaneous

Check;

- ❑ Look for loose or missing hardware
- ❑ All lubrication points
- ❑ Examine paint finish; touch up where necessary
- ❑ Check decals; In correct position and legible
- ❑ Make sure all owner's manuals are in document tube
- ❑ _____
- ❑ _____
- ❑ _____

Should you encounter any areas that require repair during set-up, please explain below and fax a copy of the checklist and the problem description to us.

Problem Description _____

_____

_____

_____

_____

Distributor _____ Inspected by _____

Customer _____ Date_____

NOTICE !!!

Unauthorized modifications may present extreme safety hazards to operators and bystanders and could also result in product damage.

Textron Turf Care And Specialty Products strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Textron Turf Care And Specialty Products Engineering Department. Any Textron Turf Care And Specialty Products product that is altered, modified or changed in any manner not specifically authorized after original manufacture-including the addition of “aftermarket” accessories or component parts not specifically approved by Textron Turf Care And Specialty Products-will result in the Textron Turf Care And Specialty Products Warranty being voided.

Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Textron Turf Care And Specialty Products will be considered the responsibility of the individual(s) or company designing and/or making such changes. Textron Turf Care And Specialty Products will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.

This symbol means:

ATTENTION!

BECOME ALERT!

Your safety and the safety of others is involved.

Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. These words appear in this manual and on the safety labels attached to Bunton machines. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

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

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

SERIAL TAG

MODEL NUMBER: This number appears on sales literature, technical manuals and price lists.

SERIAL NUMBER: This number appears only on your mower. It contains the model number followed consecutively by the serial number. Use this number when ordering parts or seeking warranty information.

1.0 PREPARATION

The set-up and initial testing of the unit should always be performed by a qualified technician.

CAUTION *Do not attempt to drive the mower unless you are familiar with this type of equipment and know how to operate all controls correctly.*

1. Read each instruction completely and make sure you understand it before proceeding with the assembly.
2. The “Right” and “Left”, “Front” and “Rear” of the machine are referenced from the operator’s seat when facing the direction of forward travel.
3. Park the machine on a flat level surface, engage the brake, stop the engine, and remove the key from the ignition switch.

1.1 INITIAL BATTERY SERVICE

The battery installed in this equipment contains electrolyte and has been fully charged. See Section 3.13 for any battery maintenance that may be required.

If the battery in the equipment is in the dry state;

1. Remove the battery and take to a proper service area. Never fill a battery while in the mower. Filling the battery could result in spilling acid on metal parts causing corrosion and unsightly damage to the mower.

   ⚠WARNING *Battery electrolyte is very caustic and fumes are explosive and can cause serious injury or death.*

2. Fill the battery with electrolyte (refined sulfuric acid) to the upper line.
3. Allow the battery to stand for at least one hour to ensure the electrolyte fully soaks into the battery plates.
4. Rock the battery several times during the hour to remove any air bubbles.
5. If the level has fallen, add more electrolyte to the upper line.

Note:
This is the only time electrolyte is to be added for the entire life of the battery. Following the initial filling, add clean distilled water only.

1.2 INITIAL INSPECTION

1. Perform a visual inspection of the entire unit, look for signs of wear, loose hardware, and components that may have been damaged during transport.
2. Inspect paint and decals for damage or scratches. Decals provide important operating and safety information. Replace all missing or hard to read decals.
3. All engine fluids must be at the full level mark with engine cold.

   Check:

   a. Radiator coolant level
   b. Engine oil level
   c. Hydraulic fluid level (See Section 3.4)

4. Make sure air filter connections are tight and cover is securely in place.
5. Check tires for proper inflation. Tires have been over inflated for transport.

   Front – 20-25 psi (110-138 kPa)

   Rear – 9-11 psi (55-69 kPa)

6. Check engine belt tension.
7. Inspect battery connections and electrolyte level. Check that battery is fully charged.
8. Check for fuel or oil leaks.
9. Inspect lube points on tractor for proper lubrication.
10. Lower discharge chute and secure firmly in place.

2.0 POWER UNIT

2.1 ENGINE

Gasoline, 4 cycle, 3 cylinders, in line, liquid cooled, cast iron block, aluminum head.

2.2 DRIVE SYSTEM

Full hydrostatic pump and wheel motor combination for independently controlled drive wheels.

Pump: Hydrogear 21cc variable displacement piston pump, Series BDP21.

Motors: Eaton Char-Lynn®, 30 cu. in. displacement, 2000 series. Direct drive 1-1/4" (31.8mm) diameter output shaft.

Turn Radius: Zero Inches (0").

2.3 OPERATOR PRESENCE SYSTEM

Start: The PTO (blades) must be OFF, Steering Control Levers in the neutral lock position, and the Parking Brake engaged for the engine to crank.

Run: Operator must be in the seat to disengage the Parking Brake; to move the Steering Control Levers out of the neutral lock position; or to engage the PTO (blades) or the engine will die. The alarm will sound when the Parking Brake is engaged and the Steering Control Levers are moved out of the neutral position.

The operator may leave the seat with the engine running if the Parking Brake is engaged, the PTO (Blades) is OFF, and the Steering Control Levers are in the neutral lock position. A time delay eliminates annoying engine cutout from operation over rough terrain.

2.4 CONTROLS

Throttle; choke; power takeoff (PTO) clutch switch; traction levers; parking brake lever; lift switch.

2.5 FUEL SYSTEM

One tank on each side of operator, each with a selector valve (1/4 turn). Total capacity 10-1/2 gallons (44 liters). Fuel selector/shutoff switch on Right Hand panel (1/4 turn). Replaceable fuel filter.

2.6 MAXIMUM GROUND SPEEDS

Forward: 8 mph (12.9 km/h)

Reverse: 3 mph (4.8 km/h)

2.7 WHEELS AND TIRES

Drive Wheels: 24x12.00-12 4-ply turf tread tires. Inflate to 10 psi (0.7 kg/cm^2).

Caster Wheels: 13x5.00-6 4-ply rib tread tires. Inflate to 17 psi (1.19 kg/cm^2).

Braking: Hayes disc type parking brakes.

2.8 SEAT

High back, foam padded with standard armrests; fore and aft adjusters; hinged for easy access to pumps and battery; lanyard cable to hold in raised position; internally mounted seat switch.

2.9 DRY WEIGHT

1620 lbs. (729 kg) with 72" cutterdeck.

2.10 ENGINE SPECIFICATIONS

ENGINE: B&S Vanguard, Daihatsu	
Model Number	642300
Model	580477
Dry Weight	137 lbs (62 kg)
Cylinders	3; Firing Order 1-2-3
Cooling	Liquid/Forced Circulation
Bore/Stroke	2.834/3.090 72/78mm
Displacement	58.1 cu. in. (952 cc)
Compression	8.63:1
Compression Pressure @ 400 rpm	198.1 psi (14.0 kg/cm^2)
Output Power	31 hp (23.1 kw) @ 3600 rpm
Output Torque	50 ft-lb (67.7 J) @ 3000 rpm
Lubrication	Full Pressure

Cylinder Block	Aluminum with Cast Iron
Air Cleaner	Dual Element
Ignition System	Electronic
Charging System	40 amp, Regulated
Battery	BCI group U1
Fuel Tank	Polyethylene
Fuel Consumption @ max Load/Speed	0.54 lb. / bh hr 1.8 gal/hr @ 27.5 hp (4.2 l/hr)
Electrical Protection	Charging Circuit; 40 amp Circuit Breaker
	PTO and Lift; 15 amp Blade Fuse
	Harness and Control Circuits; 30 amp Blade Fuse

FLUID CAPACITIES	Quantity	Type	Filter
Fuel	10.5 gal (44.2 l) Total Dual Tanks	Regular, unleaded Gasoline	Replaceable
Engine Oil	3.2 qts (3 l)	SAE 10W30 SAE 10W40 SAE 10W50	Spin-On Replaceable
Hydraulic Oil	10 qts	SAE 15W40 Motor Oil SAE 20W50 Motor Oil 15W50 Synthetic	25 micron Spin-on Replaceable

2.11 DECK SPECIFICATIONS

CUTTERDECK	
Type	Side Discharge
Cutting Width	71.5” (181cm)
Width (Chute Up)	72.5” (184 cm)
Width (Chute Down)	84 (213 cm)
Cutting Unit	Three High Lift Blades
Blade Length	24.5 in. (457mm)
Blade Thickness	0.250 In.
Daily Production (8 hr @ 6 mph)	Up to 32 acres (13ha)

Construction: Fabricated and welded 7 gauge, double layer steel front and spindle mount. Full floating design.

Cutter Deck Drive System: Electric clutch/brake drives belt directly from engine to center spindle of engine.

Spindles: Top mounted and maintenance free, with 1” shaft in precision machined, ductile iron housing.

Anti-Scalp Rollers: Total of six - one at each corner, one in front and one in rear center.

Cutting height & Production: Electric lift allows easy setting of cut heights from 1” to 5.0” infinitely adjustable. A height of cut indicator provides quick and convenient reference to height of cut that is selected.

3.0 FUEL

⚠WARNING *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.*

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.

Never overfill or allow the tank to become empty. 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.

1. Fill the tractor's fuel tank at the end of each operating day to within 1" (25.4mm) below the filler neck to allow room for the gas to expand.
   a. Refer to the Engine Manual for the proper grade and octane rating recommended for the mower's engine.
   b. Be sure to reinstall and tighten the fuel caps securely.
   c. Wipe up any spilled gasoline
2. Replace fuel filter every 100 hours.
3. Store fuel according to local, state or federal ordinances and recommendations from your fuel supplier.

3.1 TIRES

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

   Front – 20-25 psi (110-138 kPa)

   Rear – 9-11 psi (55-69 kPa)

   Incorrect tire pressure will effect mowing performance and the life of the tire.
3. Low pressure on one of the rear tires will make the mower pull towards that drive tire and may cause uneven cutting
4. When replacing front tires, the circumference variation from old tire to new tire must be within 2 in., (50 mm). The cutting height of the mower is directly related to the radius of the front tires.

⚠CAUTION *Improper mounting of a tire can cause an explosion which can result in serious injury.*

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

3.2 AIR FILTER

Refer to the Engine Manual for recommended procedures for servicing the engine air filter.

IMPORTANT:

If the mower is operated in dusty conditions, it will be necessary to service the air filter more frequently than usual.

3.3 ENGINE OIL

Refer to the Engine Manual for recommended service intervals, break-in period, weight and grade of oil used.

CAUTION *Never check or add engine oil while the engine is running.*

3.4 HYDRAULIC OIL AND FILTER

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

⚠WARNING *Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin. If fluid in injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this form of injury. Gangrene may result if not treated properly.*

1. Park the mower on a flat level surface, lower the cutting deck and stop the engine.
2. Oil temperature should be at 60°F to 90°F. Do not check oil level when oil is hot.
3. The fluid level in the reservoir should always be within 1” (25.4mm) from the top of the tank.
4. To fill the hydraulic reservoir, stop the engine and add the recommended oil to the proper oil level.

HYDRAULIC OIL	
Mineral Base	
15W40	20W50
Synthetic Base	
15W50	

IMPORTANT:

If water contamination is suspected (cloudy or milky appearance of oil), or the oil has a rancid odor, indicating a breakdown in the oil due to excessive heat, change the hydraulic oil and filter immediately.

Note:

The 25 micron suction filter is located under the hydraulic oil reservoir tank.

3.5 HYDRAULIC OIL FILTER

The hydraulic drain valve is located under the hydraulic oil reservoir next to the hydraulic oil filter.

1. Attach a plastic drain hose and drain the waste hydraulic oil into an appropriate container.
2. Place collection pan on the ground just to the rear of the cutter deck.
3. Use a funnel to direct the oil into the collection pan when the cap is removed from the drain tube.
4. Place a thin film of oil on the gasket of the new filter and install.
5. Fill the reservoir with the recommended hydraulic oil.
6. Start engine and run at idle for 3 minutes to circulate the new oil.
7. Drive the machine to remove any air trapped in the system.
8. Stop the engine.
   a. Check reservoir oil level and add oil if necessary.
   b. Check entire hydraulic drive system for leaks.

Note:

After return to service, if the hydrostatic drive performance seems substandard, contact an authorized Bunton Service Dealer.

3.6 HYDRAULIC MOTORS AND PUMPS

The hydraulic wheel motors and pumps are sealed at the factory and should not require service. See an authorized Bunton Dealer if the wheel motors and/or pumps require attention.

3.7 LEVELING THE MOWER

⚠WARNING *Leaving a mower running and unattended can be fatal or cause serious injury.*

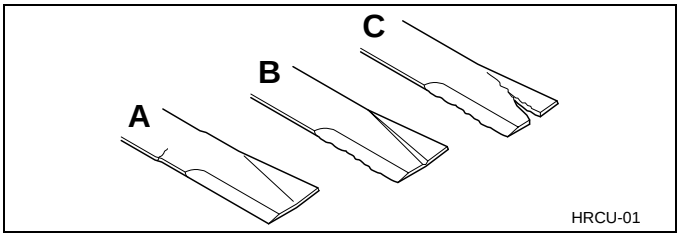
To prevent injury, lower the mower deck to the ground, disengage all drives, engage parking brake and stop engine before making any adjustments.

1. Park the mower on a flat level surface.
2. Measure from the ground to the front of the deck. With respect to the height at this point the rear of the deck must be 3/16 inch (4.76mm) higher than the front.
3. Adjust the rear lift chains to compensate for any difference in height. See Section 6.9.

3.8 BLADE INSPECTION

1. The blades should be inspected every 8 hours or whenever the mower has struck a hard object to ensure they are in good operating condition. Blades showing any bends, cracks or grooves must be replaced.
2. Any of the above conditions can cause a piece of the blade to break away and be hurled from the mower; causing very serious injury to bystanders or property damage.
3. A bent blade could have a microscopic crack (A) that can grow and cause a piece of the blade to break. Bent blades will also create vibration and other stress on the machinery.
4. Dust or sand particles can wear a groove in the blade (B) between the air vanes and the flat portion of the blade. Continued use will rapidly develop the groove into a crack (C), permitting a piece of the vane to brake off.

Figure 3A



3.9 BLADE REMOVAL

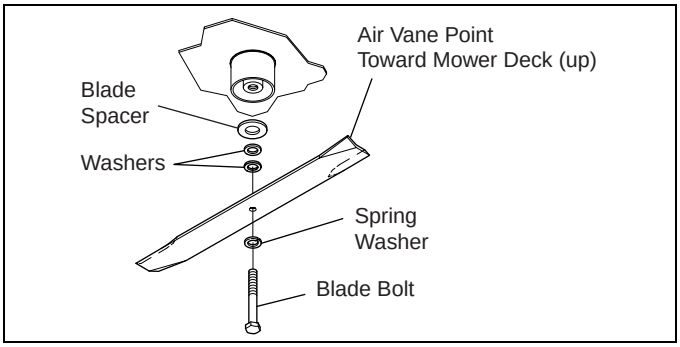
1. Raise the cutting deck to the highest cutting height.
2. Stop the mower, set the parking brake, stop the engine, remove the ignition key, and disconnect the spark plug wires.
3. Chock the rear wheels and raise the front end of the mower.
4. Support the front end on jack stands.
5. Remove the blade/bolt assembly from the bottom of the deck. Place a wooden block between the blade and the mower housing to prevent the blade from turning.

⚠WARNING *Always support the deck under all four corners (use appropiate height blocks) prior to removing the blade bolt to change blades.*

3.10 REPLACING BLADE

1. Make certain the air vanes of the blade point toward the mower housing. Assemble blade to cutter housing using the 5/8-18 x 2-3/4" blade bolt, blade washer, and 2 spacer washers as shown.
2. Torque Blade Bolt to 75-85 ft. lb. (101.7-115.3 Nm).

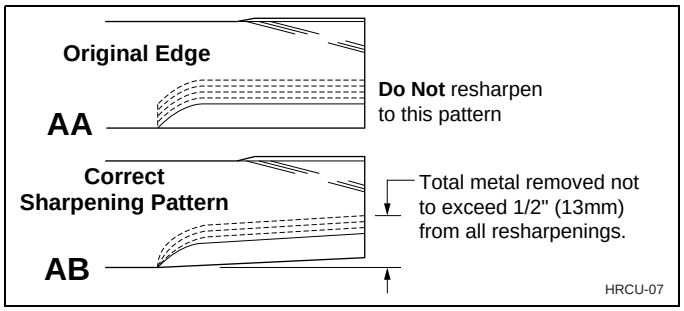
Figure 3B



3.11 BLADE SHARPENING

1. When dressing or resharpening the blade DO NOT follow the original angle of grind as shown in “AA”. Grind new cutting edges on a diagonal as shown in “AB”.

Figure 3C



2. As a consequence of all resharpenings, a total loss off of 1/2 in. (13 mm) of metal is allowable.
3. Make sure each cutting edge is equally sharpened to prevent an unbalanced blade. This will cause excessive vibration and may damage the mower.
4. Use a blade balancer to check the blade.

⚠CAUTION *Beware of cutting edges. Always wear gloves for safety during blade maintenance activities.*

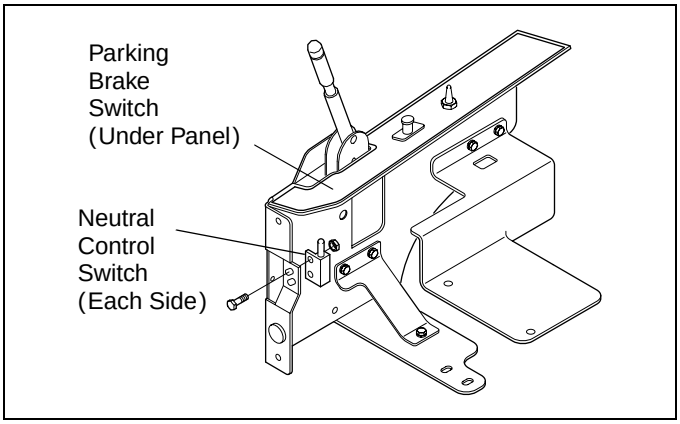
3.12 SAFETY INTERLOCK SYSTEM

⚠CAUTION *Do not by-pass the safety interlock system or switches. They are included for your protection. Check the safety system and mechanisms daily for proper operation. If a defect is found, repair immediately. Do not operate the equipment in a defective condition.*

The safety interlock system is designed to allow the operator to start the mower only if the blades are disengaged, the parking brake is set, and the steering control levers are in the outward neutral lock position.

1. The engine will shut off if the operator is not in the seat and;
   a. the parking brake is disengaged.
   b. the control lever is moved out of the neutral lock position.
2. Check the switch activating mechanism and connections on a regular basis to ensure;
   a. the electrical wiring is not cracked or broken.
   b. all connections are tight.
   c. engine components (fuel, Ignition system) are functioning properly.
3. Check the Neutral Control switches to ensure the plungers are fully depressed when the Neutral Control Levers are in the lock position.
4. Check the Park Brake switch to ensure the plunger is fully depressed when in the drive mode.

Figure 3D



3.13 BATTERY MAINTENANCE

⚠WARNING *Battery acid is very caustic and fumes are explosive and can cause serious injury or death.*

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.

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

1. Verify battery polarity before connecting or disconnecting the battery cables.

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

b. When removing the battery, always remove the ground, BLACK, negative (**-**) cable first and the RED, positive (**+**) cable last.

2. Check the electrolyte level every 100 hours of operation.

   a. Adjust to the correct level with distilled water only. Do not expose the plates to air and do not overfill.

⚠WARNING *Never add electrolyte to a charged battery. The chemical reaction could cause serious injury.*

Note:
The addition of tap water to a battery will reduce its useful life due to contamination of salts and other minerals.

   b. When temperatures are below the freezing point it is important that batteries be fully charged to prevent the electrolyte from freezing.

3. Clean the cable ends and battery posts with steel wool. Use a solution of baking soda and water to clean the battery. Do not allow the solution to enter into the battery cells.

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

5. Keep the outside of the battery clean and dry. Dirt and moisture on the top surface can cause current to trickle from one post to another causing a discharge condition.

6. Do not cover holes in vent plugs. This may allow the buildup of gases in the battery.

7. Keep the vent plugs tight to prevent spilling of electrolyte on the top of the battery.

8. Keep the battery secured firmly in place to help eliminate excessive vibration which could cause internal damage and shorten the life of the battery.

3.14 BATTERY – CHARGING

⚠WARNING *Battery acid is very caustic and fumes are explosive and can cause serious injury or death.*

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.

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.

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

1. Refer to the Battery and Charger's manual for specific instructions.

2. Whenever possible, remove the battery from the tractor before charging and make sure 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 the charger from the battery terminals.

3.15 BATTERY - STORAGE

1. Remove, clean and store battery in upright position in a cool, dry place, fully charged.

   Storage above 80°F (26.7°C) greatly increases self-discharge. If wet batteries are discharged, the electrolyte will freeze when stored below 20°F (-7°C).

   A fully charged battery will have a hydrometer reading of 1.260.

2. Check and trickle charge the battery every 60 to 90 days while in storage.

Note:
If the battery must be stored in the equipment, disconnect the ground cable from the battery's negative terminal post.

3.16 COOLANT

⚠ WARNING *A hot radiator is under pressure and can cause serious burns to the body.*

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

1. Check coolant level daily. The radiator and recovery bottle should be between the FULL and LOW mark when the system is cold.
2. If the reservoir is dry, both the reservoir and the radiator must be filled. Fill the radiator to the bottom of the fill cap and between the FULL and Low mark in the reservoir.
3. Drain, flush and refill the cooling system annually.
   a. Remove radiator cap. Remove radiator drain plug and drain the system.
   b. Empty and clean the recovery bottle.
   c. Replace and tighten the drain plug.

   Note:
   Follow state or federal laws regarding the proper procedure for disposing of antifreeze.

   d. Mix 50% clean water with 50% ethylene glycol based anti-freeze. Read and follow instructions on anti-freeze container.
   e. Start and run engine until thermostat opens (when coolant level drops, thermostat is open).
   f. Check coolant level in radiator and add coolant as required.
4. If you have to add coolant more than once a month, or add more than one quart at a time, have an Authorized Bunton Distributor check the cooling system.

   CAUTION *Damage to the engine can occur when adding cold water to a hot engine.*

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

   Note:
   Make sure the hood aand radiator air pasages are clean. Check daily before mowing. Check more frequently under severe conditions.
5. Keep the hood and radiator air passages clean. Place a work light on the engine side of radiator to inspect the air passage through the fins.
6. See the Engine Manual for more information.

4.0 MAINTENANCE SCHEDULE

MAINTENANCE OPERATION	Maintenance is an ongoing job. These intervals are maximum times between maintenance operations. Perform more often under severe conditions.						
	FIRST 5 HOURS	DAILY	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY 200 HOURS	EVERY 500 HOURS
ENGINE **Consult the engine manual for additional information and instructions.**							
Check/Top up Oil Level	X	X					
Check for leaks		X					
Clean Air Intake Screen		X					
Clean Air Cleaner Precleaner			X				
Clean Air Cleaner Element					X		
Cooling System, Radiator		Inspect Clean					Replace Coolant Yearly
Change Oil and Filter	X	See engine manufacturer's manual					
Check/Replace Spark Plugs						X	
MACHINE							
Check Interlock Operation		X					
Check Tire Pressure		X					
Lubricate All Points				X			
Check Lift Chains			X				
Hydraulics							
Check for Leaks		X					
Check/Top Up Oil Level					X		
Change Oil and Filter	X						X

4.1 DAILY CHECK

Operator Presence Interlock System - Start Operation

The safety interlock system prevents the engine from starting unless the blades are disengaged, the Parking Brake is set, and the Steering Control Levers are in the outward neutral lock position.

The system also stops the engine if the operator leaves the seat with the PTO (Blades) ON, the Parking Brake disengaged and the Steering Control Levers out of the neutral lock position.

To check:

For the engine to crank, the Parking Brake must be engaged, the PTO (blades) OFF and the Steering Control Levers in the neutral lock position. Sit in the seat and check if the engine will crank with;

1. The Parking Brake is disengaged
2. The blades ON
3. One or both Steering Control Levers moved out of the neutral lock position.

If the machine fails this tests find the problem and correct before using the machine.

Operator Presence Interlock System - Run Operation

The operator must be in the seat for the engine to RUN with the Parking Brake disengaged, the Steering Control Levers moved out of the neutral lock position, or the PTO (blades) ON.

To check:

Start the engine and run at 1/2 throttle with the operator on the machine but raised off the seat.

1. Move the Parking Brake to the OFF position
2. Steering Control Levers out of the neutral lock position (check each independently)
3. Turn the blades ON

Each test should kill the engine after 1/2 second. (A 1/2 second delay is built into the system to prevent engine cutout when traversing rough terrain.)

If the machine fails any of these tests find the problem and correct before using the machine.

If the problem still exists contact your authorized Bunton Dealer.

Hardware

Tighten any nuts and bolts found loose. Replace any broken or missing cotter pins. Repair any other problems before operating.

Tire Pressure

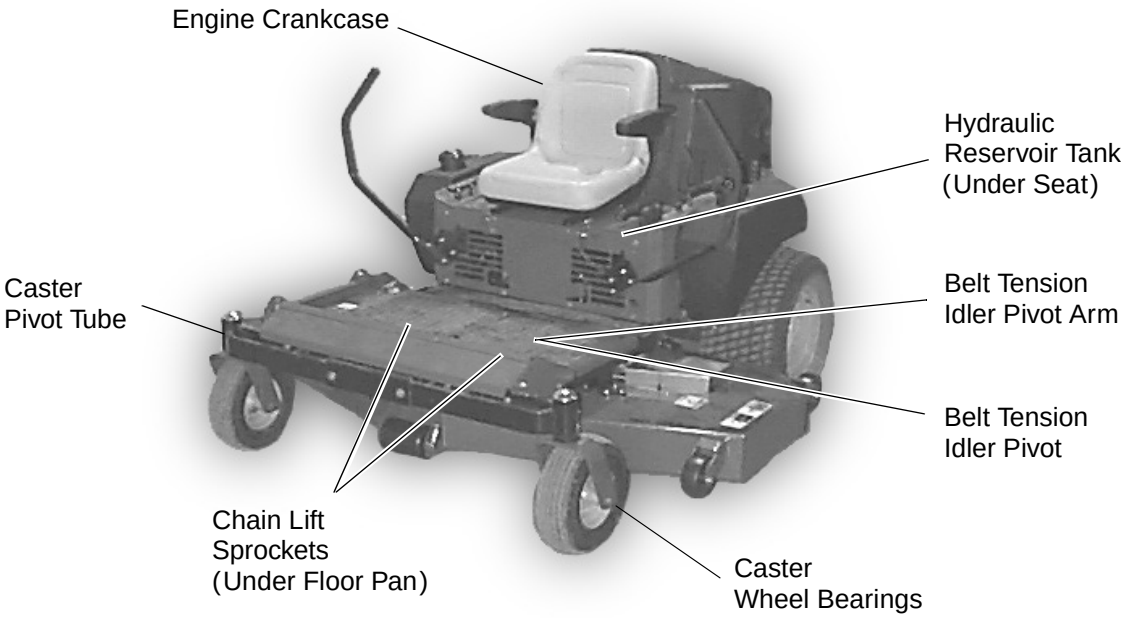
Tires should be kept inflated at 20-25 psi (110-138 kPa) front and 9-11 psi (55-69 kPa) rear. Improper tire inflation can cause rapid tire wear and poor traction. Uneven inflation can cause uneven cutting.

Battery

Check the electrolyte level at each oil change as follows.

1. Stop the engine and remove the key
2. Remove the battery vent caps. The electrolyte level should reach the bottom of the vents.
3. Top up, if necessary, with distilled water.
4. Replace vent caps.

4.2 LUBRICATION



Location	Description	Lube	Fittings	Lubrication Frequency
Engine	Engine Crankcase	Oil	1	See Engine Manual
Cutting Deck	Belt Tension Idler Pivot Arm	Grease	1	25 Hours
Cutting Deck Lift Mechanism	Chain Lift Sprockets	Chain Lub	—	25 Hours
Deck Drive	Belt Tension Idler Pivot	Oil	Two Bearings	25 Hours
Pump Drive	Belt Tension Idler Pivot	Grease	1	25 Hours
Hydraulic Reservoir (Under Seat)	Hydraulic Reservoir Tank 8 Quart Capacity 25 Micron Oil Filter	Hydraulic Oil	—	Check for leaks daily. Change oil and filter after first 5 hours of break-in and every 500 hours thereafter.
Front Casters	Caster Pivot Tube	Grease	2	25 Hours
	Caster Wheel Bearings	Grease	2	25 Hours

LEGEND: **Grease** - NLGI #2 Lithium Base E.P. Grease, **Engine OIL** - Consult the Engine Manual, **Hydraulic Oil** - Mineral base oil - SAE 15W40 or 20W50; or Synthetic base oil - 15W50; **Hydraulic Filter** - Spin On Automotive Type, Part No. PL8260.

IMPORTANT:

The lubrication chart indicates recommended lubrication levels. Under severe or unusual mowing conditions, time intervals between lubrication may be more frequent.

IMPORTANT:

Environmental laws require used oil to be disposed of in a specific manner. It is the responsibility of the owner/operator/service technician to dispose of used oil in accordance with all applicable local, state, and federal laws.

5.0 TROUBLESHOOTING

Before making any adjustments or performing maintenance, read the entire adjustment or maintenance section for proper procedures and warnings.

Symptoms	*Probable Cause*	*Solution*
Engine does not start.	Empty fuel tank or dirty fuel.	Add or drain and refill with fresh fuel. See Section 3.0.
	Battery, Circuit Breakers.	See Section 3.13 and Section 3.14.
	Operator Back-Up System.	Controls not set properly. See Operator's Manual (2258004).
	Electrical System.	See Figure-19.
	Engine - Spark Plugs.	See Engine Manual.
Engine hard to start or runs erratically, stalls, looses power or stops.	Fuel leaks, dirty fuel, incorrect fuel.	Refill with proper grade, clean fuel. See Section 3.0.
	Fuel Filter.	Replace filter. See Engine Manual.
	Loose Wiring.	See Figure-19.
	Air intake, air cleaner plugged.	Clean air-intake, air filter. See Section 3.2.
	Loose water pump belt.	See Section 3.16.
	Engine Overloaded.	Reduce forward speed.
Engine Overheating.	Air intake plugged.	Clean air-intake, air filter. See Section 3.2.
	Low coolant.	Check radiator. See Section 3.16.
	Loose water pump belt.	See Section 3.16.
	Engine overload.	Reduce forward speed.
Battery does not hold charge.	Loose, corroded battery terminals.	See Section 3.13.
	Low electrolyte.	See Section 3.13.
	Alternator not charging.	Loose fan belt. See Engine Manual.
Gauges/Indicators not operating.	Circuit breakers and bulbs.	Reset circuit breakers, replace bulbs.
	Loose wiring.	See Figure-19.
Tractor does not react to steering control levers	Parking brake.	Disengage brake. See Section 6.7.
	Free Wheel Valve.	Check position of the valve. See Section 6.5.
	Low hydraulic oil.	Check Oil Level. See Section 3.4.
Severe tracking left or right.	Free Wheel Valve.	Check position of the valve. See Section 6.5.
Mowers do not cut or cut unevenly.	Misadjusted.	See Section 6.9.

6.0 ADJUSTMENTS

⚠ WARNING *An improperly secured tractor ready for adjustments can cause serious injury or be fatal.*

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

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

If only the front or rear of the tractor is raised, place chocks in front of and behind the wheels that are not raised. (Ensure caster wheels are directed rearward.)

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an Authorized Bob-Cat Distributor.
2. Replace, do not adjust, worn or damaged components.
3. Do not wear jewelry or loose fitting clothing when making adjustments or repairs.

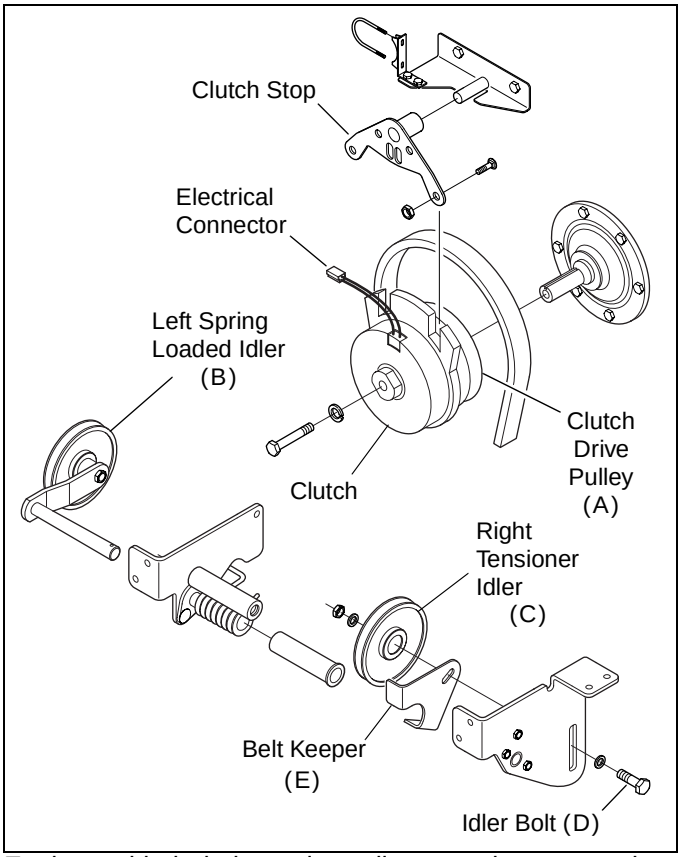
⚠ WARNING *Serious injury or death can result from blade contact.*

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

6.1 ENGINE TO BLADE BELT REPLACE AND ADJUSTMENT

The PTO drive belt consists of one single long belt running from the electric PTO clutch drive pulley (A) to the top center spindle pulley of the cutting deck. Proper belt tension is maintained by two V-idler pulleys (B) and (C).

Figure 6A



Engine to blade belt tension adjustment is correct when the spring loaded idler pulley (B) is at its maximum height when the cutting deck is at its lowest cutting height position.

Replacement:

1. Unplug the clutch from the wire harness. Remove the two bolts that secure the clutch to the clutch stop.
2. Lower the cutting deck to its lowest position.

⚠ CAUTION *The left hand idler is under spring tension.*

3. Loosen the 1/2-13 x 2-3/4” Idler Bolt (D) that secures the Right Tension Idler (C).
4. Remove the old belt and check the pulley grooves for damage or excessive wear. Replace if necessary.
5. Install the new belt, reattach the clutch stop and connect the clutch connector to the wire harness.

Adjustment:

1. ***Lower the cutting deck to its lowest position***.
2. Lower the Right Tensioner Idler (C) to align horizontally with the Left Spring Loaded Idler (B).
3. With the idler pulleys in this position, adjust the Belt Keeper (E) so each leg of the keeper is 1/16-1/8” from the belt.
4. Secure Idler Bolt (D) holding the right tension idler.
5. Raise and lower the deck fully to ensure no interference with the sprockets, idler arm, or any other object.
6. Ensure the Belt Keeper (E) is still in position.

6.2 BLADE TO BLADE BELT ADJUSTMENT

A single belt supplies power to the three blade spindles. Belt tension is maintained by a spring (D) loaded idler pulley. Proper belt tension is maintained with a minimum spring dimension of 3-7/8" (77mm).

Note:

Keep this area clean and periodically inspect the blade belt for abnormal wear and proper tension.

IMPORTANT:

If the blade belt becomes worn, damaged, or stretched beyond use; Replace it.

Note:

Before removing the blade to blade belt, the engine to blade belt must be removed from the center pulley.

1. Remove tension on the engine to blade belt at the engine and remove the belt from the deck pulley.
2. Decrease the tension on the idler pulley (A) by loosening the Nyloc nut (B) on the idler rod (C).
3. Remove the belt for replacement.

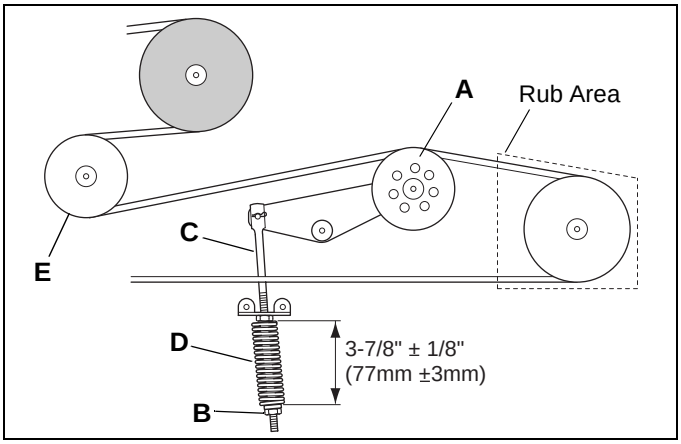
Reverse the procedure for installation of the new belt.

The stationary idler (E) is mounted to the deck. If the belt rubs on the belt cover in the area as shown and the tension idler is adjusted to its maximum position, move the stationary idler to an appropriate mounting hole on the deck

Increase belt tension:

To increase belt tension, turn nut (B) 1/4 turn until desired belt tension is reached.

Figure 6B



6.3 STEERING CONTROL ADJUSTMENT

Steering Control Arms Position Adjustment Bracket:

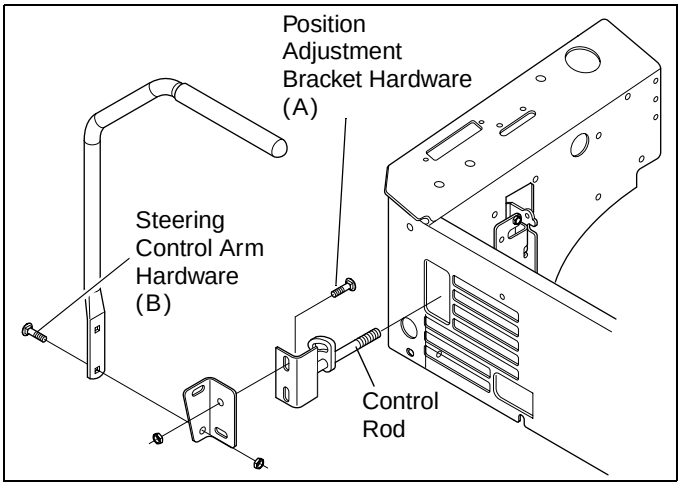
1. Loosen bolts (A) holding the steering brackets to the steering block arms.
2. Slide the bracket up or down and side-to-side for operator comfort.
3. Check alignment and secure hardware.

Steering Control Arms:

1. Loosen bolts (B) at the lower end of handle.
2. Tilt handles forward or aft for operator comfort.
3. Check alignment and secure hardware.

Tighten the Control Rod nuts to increase the resistance to move the Control Arm to the Neutral Lock position.

Figure 6C



6.4 NEUTRAL AND SPEED ADJUSTMENT

CAUTION *Unless the person adjusting the steering control linkage is thoroughly familiar with the system and completely understands all components, the mower should be returned to an authorized Bunton Dealer for maintenance and adjustment.*

To gain access to all control linkages, the seat mounting base must be tilted completely forward.

⚠CAUTION *With the Parking Brake engaged, the Neutral Control Levers in the neutral lock position and the PTO OFF, the engine will start.*

1. Raise the rear wheels of the mower off the ground and place on jackstands.
2. Release the tension on the brake cables, with the Parking Brake engaged, to allow the drive wheels to rotate freely. (See Section 6.7.)
3. With the Steering Control Levers in the neutral lock position, start the engine and set the throttle to half speed. If the drive wheels rotate, the neutral position must be adjusted.

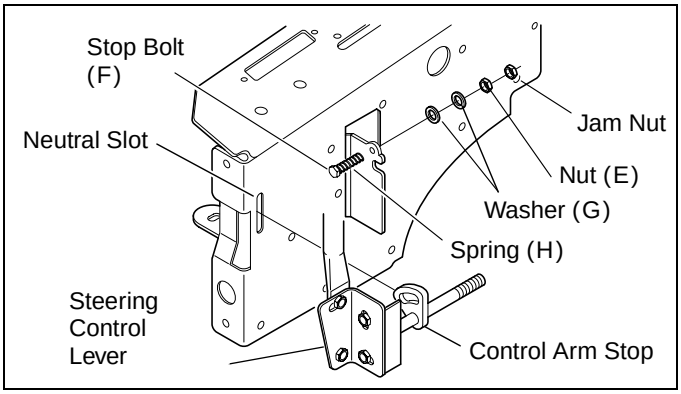
Note:
If the wheels DO NOT rotate, ignore the Neutral Position Adjustment.

6.4.1 NEUTRAL POSITION ADJ. _____

Note:
To adjust for neutral position of the Steering Control Levers, set the reverse Stop Bolt "F" first.

Maximum reverse speed is obtained when the spring (H) is fully collasped. If the machine runs too fast in reverse, move washers (G) to the spring side of the tab.

Figure 6B



6.4.2 STOP BOLT "F" ADJUSTMENT _____

1. Make sure the engine is stopped.
2. With the arms out in the neutral position, tighten nut (E) on the stop bolt (F) until the Control Arm Stop moves freely in the neutral slot.
3. Lock in place with the second jam nut.

6.4.3 NEUTRAL POSITION ADJUST_____

1. Loosen the lock nuts (C and D) on the control rod.

   Turning the control rod (B) clockwise 1/2 turn will increase the speed of the wheel pump. Turning control rod (B) counter-clockwise will decrease the speed of the wheel pump.
2. Turn the control rod clockwise or counter-clockwise until the wheels stop rotating.
3. Tighten locknuts (C & D).

6.4.4 MAXIMUM FORWARD SPEED ADJ.___

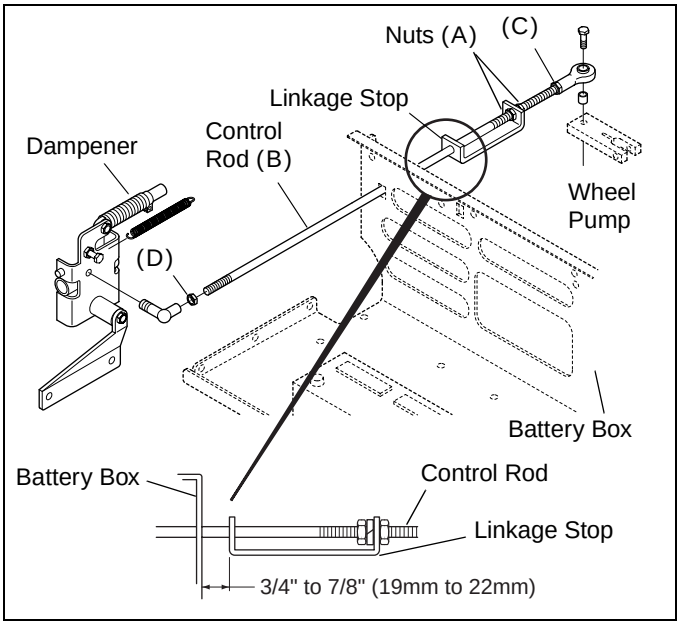
IMPORTANT:
Make sure the Linkage Stop contacts the Battery Box prior to the Hydro Pump Control Arm "Bottoming Out". Bottoming out of the pump may result in damage to the pump.

Positioning of the Linkage Stop on the Control Rod determines the max. forward speed. Adjust as required to obtain the same RPM of each drive wheel with the Steering Levers in the max forward position.

Wheel Speed Adjustment:

Note:
To avoid internal damage to the pumps, the linkage stop must contact the battery box before the pump control "bottoms out".

Figure 6E



1. If the engine is not running, start the engine.
2. Adjust the Linkage Stop to prevent the Hydro Pumps from "bottoming out", 3/4"-7/8" (19mm to 22mm). Tighten locknuts (A).
3. Test drive the mower.

If the mower tracks severely to the left or right, the faster turning wheel motor needs to be slowed down. (i.e., if the

mower tracks to the left, the right wheel motor needs to be adjusted.).

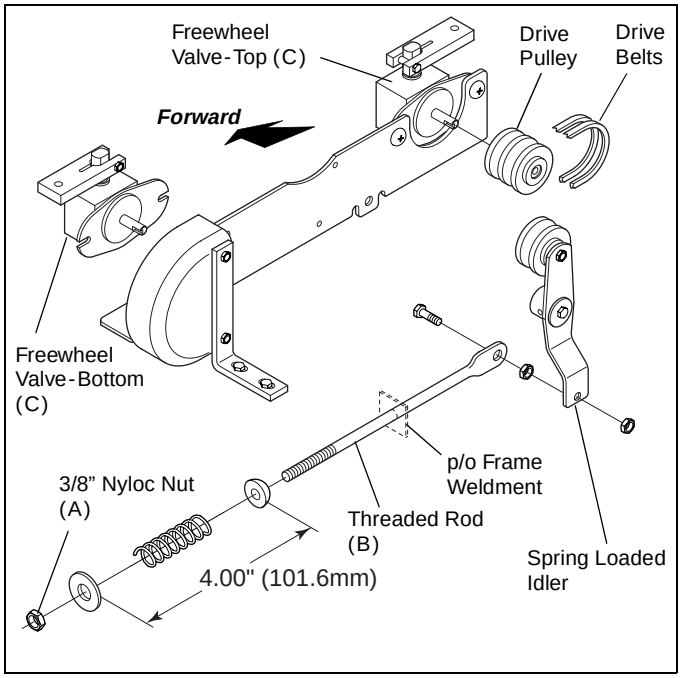
4. Readjust the Linkage Stop to slow the wheel motor. See Section 6.4.4.

IMPORTANT:

If the tracking problem persists, make sure the Freewheel Valve, one located on each pump, is in the closed position

6.5 DRIVE BELT ADJUSTMENT

Figure 6F



A matched set of belts supply power to the hydraulic pumps. Belt tension is maintained by a spring loaded idler.

Note:

Keep this area clean and periodically inspect the belts for abnormal wear and proper tension.

IMPORTANT:

If the belts become worn, damaged, or stretched beyond use; replace them always as a matched set.

1. To replace the drive belts, decrease the tension on the idler by loosening the 3/8" Nyloc nut (A) on threaded rod (B).
2. Remove the belts.

Reverse the procedure for installation of the new belts.

The idler spring should be compressed to approximately 4 in. (101.6mm).

6.6 FREEWHEEL VALVES

The mower is equipped with freewheel valves on the hydraulic pumps. This allows the mower to be moved without the engine running.

To access the freewheel valves, tilt the seat platform forward.

To locate the freewheel valve on the right hydraulic pump, locate the brass hex shaft (C) on top of the pump.

Note:

The brass hex shaft is identified by a round hole drilled through the hex.

The freewheel valve on the left hydraulic pump is located on the underside of the pump.

To activate the freewheel function, rotate each valve counter-clockwise one rotation.

IMPORTANT:

Prior to returning the unit back to service, both valves must be rotated clockwise until they are tightened 84-120 in.lbs. (9.4-13.6 Nm) of torque.

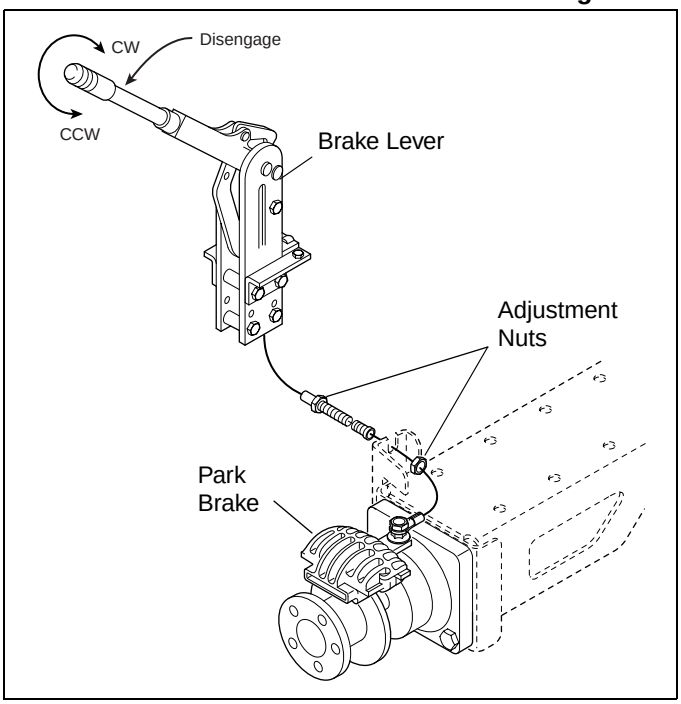
6.7 PARK BRAKE ADJUSTMENT

1. Check linkages, cables and pivot points to ensure they are operating smoothly. Check brake pads for wear.
2. Park the mower on an incline (approx 16 degree slope) near the bottom of a hill with the mower facing downhill. Engage the parking brake and stop the engine.

   If the brakes do not hold, start the engine and drive to the bottom of the hill to make the adjustment.

   CAUTION *Never disengage the parking brake when the engine is off.*
3. With the brake in the disengaged position turn the adjustment knob fully counter-clockwise (CCW) to remove tension from the brake cables.
4. Adjust the brake cables so the brake pad drags on the brake disc. Back-off the adjustment nuts just enough to let the wheel rotate freely.
5. Place the brake lever in the disengaged position and turn adjust knob in clockwise (CW) direction, applying and releasing the brake lever every quarter turn until a smooth but firm action is obtained. Over adjustment causes “hard” lever action, but does not increase brake efficiency.
6. Readjust the brake lever after brake pads have been adjusted or replaced.
7. Replace brake pads before they wear to the point that they touch each other above the disk.

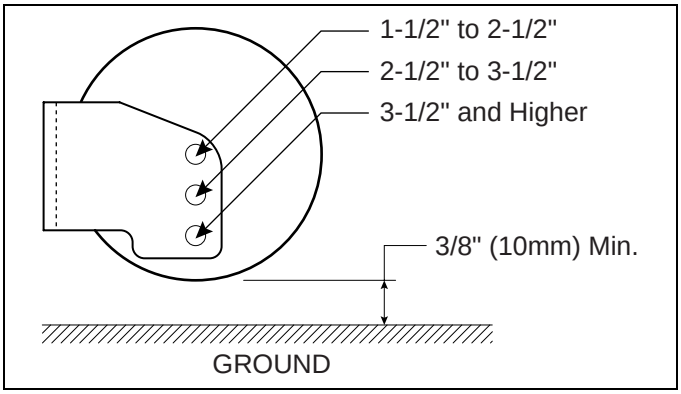
Figure 6G



6.8 DECK ANTI-SCALP ROLLERS

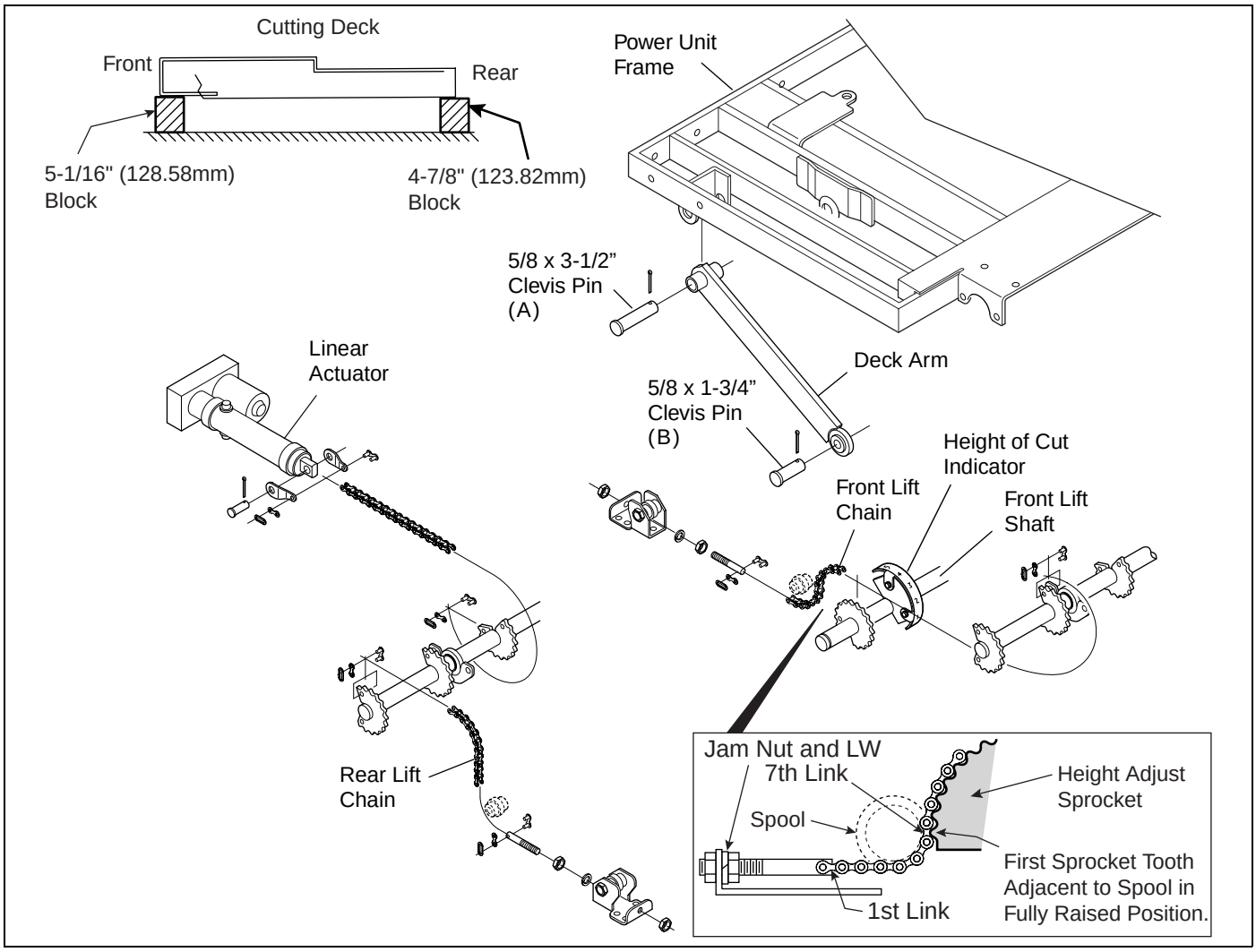
The outside deck rollers are adjustable up and down to provide scalping protection at various heights of cut. They are not meant to ride continuously on the ground. Adjust the rollers so they are no closer than 3/8” (10mm) to the ground.

Figure 6H



6.9 DECK INSTALLATION AND ADJUSTMENT

Figure 6I



⚠WARNING *Leaving a mower running and unattended can be fatal or cause serious injury.*

To prevent injury, lower the mower deck to the ground, disengage all drives, engage parking brake and stop engine before making any adjustments.

1. Park the Power Unit on a flat level surface.
2. Ensure the tires are properly inflated. See Section 3.1
3. Attach two deck arms to cutter deck with two 5/8 x 1-3/4" clevis pins and secure with cotter pins. Slide the cutter deck beneath the Power Unit.
4. Support the deck at the four corners with support blocks. Place the 5-1/16" (128.58mm) blocks in front and the 4-7/8" (123.82mm) blocks in rear.
5. Retract the Linear Actuator to its UP position.
6. Attach the deck arms to power unit using two 5/8 x 3-1/2" clevis pins and secure with cotter pins.
7. Attach the rear lift chains to the deck as shown. Tighten until the nut makes contact with the bracket.
8. Attach the front lift chains to the deck as shown. Position the first tooth of the sprocket in the seventh link of the chain and tighten the nut until it makes contact with the bracket.
9. Adjust the height of cut bracket so the height of cut indicator corresponds with actual height of cut when the floor pan is lowered.
10. Secure with the lockwasher and jam nut.
11. Remove the support blocks and verify the height of cut.

IMPORTANT:

If incorrectly mounted or adjusted so the deck bottoms against the frame, the lift shafts will be damaged.

7.0 IMPORTANT INFORMATION

Important! Read!

You have just purchased a first class mower and the useful life you obtain from your machine depends to a large extent on proper maintenance and operation. Before attempting to use your mower, read the Operation portion of this manual carefully. Become familiar with the operation, controls, adjustments, lubrication and maintenance sections.

***ALL** references to left and right, front and rear of the machine are from the operator's position when facing the direction of forward travel.*

7.1 TORQUE SPECIFICATIONS

Textron Turf Care And Speciality Products uses grade 5 bolts as standard, unless otherwise noted.

Recommended torques are for these grades of fasteners. Use these specifications unless otherwise noted.

7.2 SPECIFIC TORQUE

BLADE BOLT: 75-85 ft.lbs (101.7-115.3 Nm).

WHEEL HUB NUTS: 150-200 ft.lbs (203.4-271.2 Nm).

WHEEL LUG BOLT: 55-65 ft.lbs (74.6-88.1 Nm).

FREEWHEEL VALVE: 84-120 in.lbs (9.4-13.6 Nm).

METRIC FASTENERS							
SIZE	UNITS	4.8	5.8	8.8	10.9	12.9	Noncritical Fasteners into Aluminum
M4	Nm (in-lb)	1.2 (11)	1.7 (15)	2.9 (26)	4.1 (36)	5.0 (44)	2.0 (18)
M5	Nm (in-lb)	2.5 (22)	3.2 (28)	5.8 (51)	8.1 (72)	9.7 (86)	4.0 (35)
M6	Nm (in-lb)	4.3 (38)	5.7 (50)	9.9 (88)	14.0 (124)	16.5 (146)	6.8 (60)
M8	Nm (in-lb)	10.5 (93)	13.6 (120)	24.4 (216)	33.9 (300)	40.7 (360)	17.0 (150)
M10	Nm (ft-lb)	21.7 (16)	27.1 (20)	47.5 (35)	66.4 (49)	81.4 (60)	33.9 (25)
M12	Nm (ft-lb)	36.6 (27)	47.5 (35)	82.7 (61)	116.6 (86)	139.7 (103)	61.0 (45)
M14	Nm (ft-lb)	58.3 (43)	76.4 (55)	131.5 (97)	184.4 (136)	219.7 (162)	94.9 (70)

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

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

Familiarize yourself with the labels, they are critical to the safe operation of the machine. REPLACE DAMAGED LABELS.

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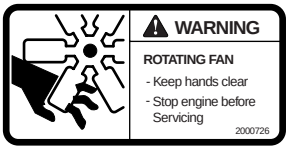

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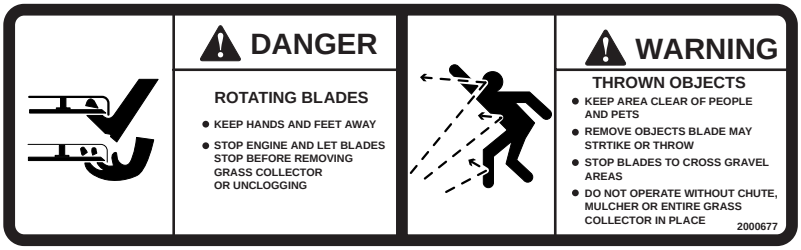
TEXTRON



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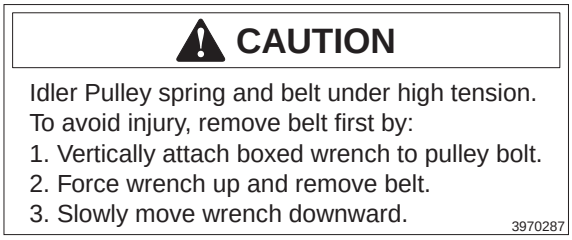

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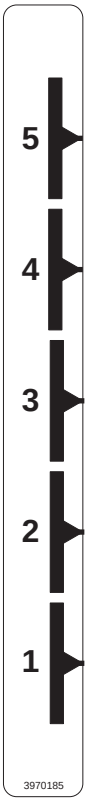

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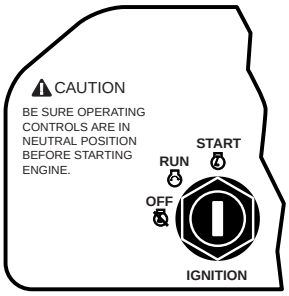
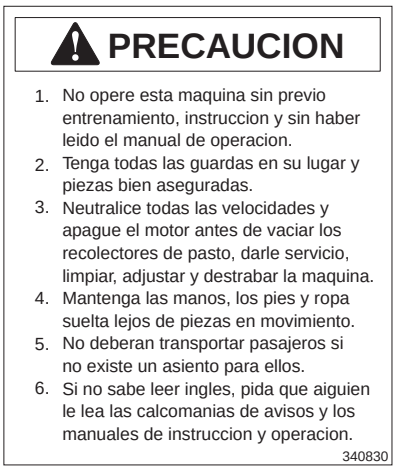
3970167



2720054

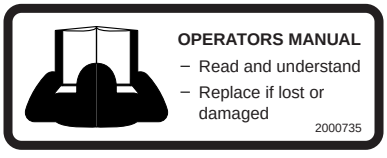


340830

365956

2000590

361175



2000735

2001978

Parts Listing

9.1 TO ORDER PARTS

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

Serial No. **XXXXX -** _____

9.2 HOW TO USE THE PART LISTING

ABBREVIATIONS:

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

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

Symbols:

- or ♦, next to the item number, indicates that a note exists which contains additional information important in ordering that part.

> Indicates a change from the previous issue of the Parts Catalog.

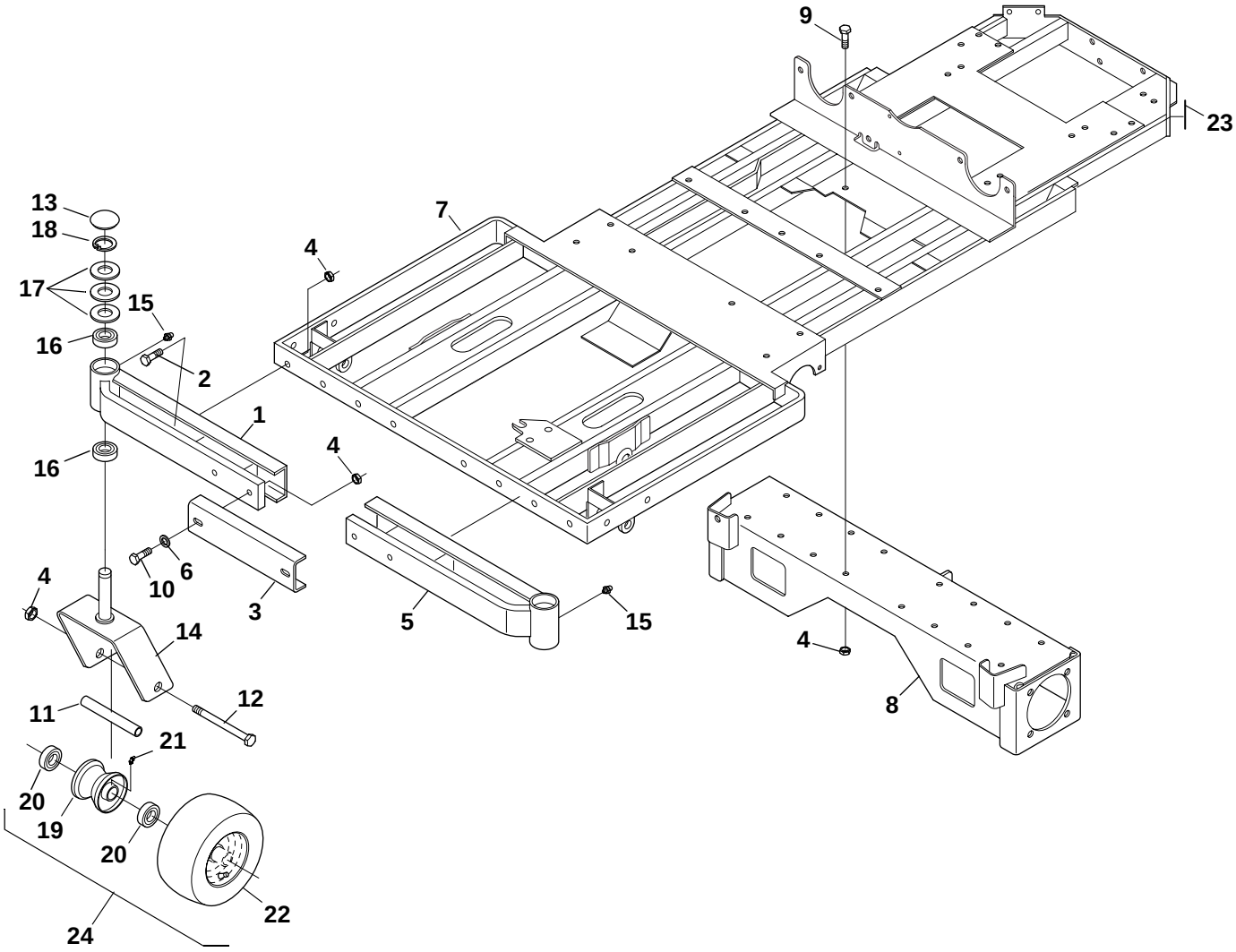
INDENTED ITEMS:

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

	Item	Part No.	Qty	Description	Serial Numbers/Notes
♦	1	123456	1	Mount, Valve *(Indicates a piece part)*	
>	2	789012	1	Valve, Lift	Includes Items 3 and 4
	3	345678	1	Handle	*Serviced part included with Item 2*
	4	N/S	1	Clip	*Non serviced part included with Item 2*

Figure-1 Main Frame Assembly

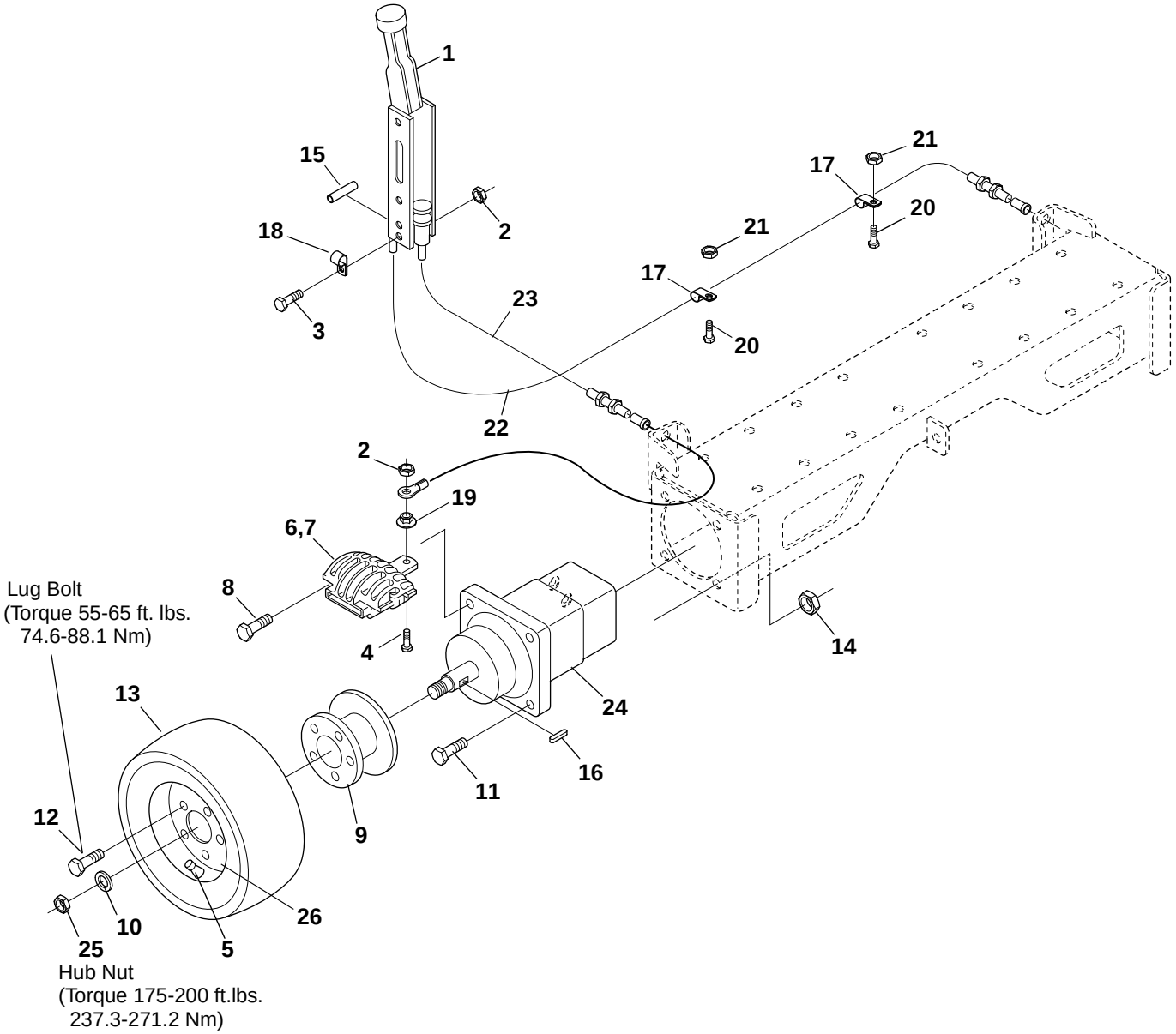
2720487



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2256002.7	1	Wldmt-caster Supt RH	
2	64123-117	4	Blt-hex 1/2-13x1-1/2	
3	2252047.7	1	Brkt-caster Supt	
4	64229-05	20	Lock Nut-nylon 1/2-13	
5	2256003.7	1	Wldmt-caster Supt LH	
6	64163-67	2	Wshr .516x1x12ga	
7	2720045	1	S Wldmt-main Frame w/label	Includes Item 23
8	2720018.7	1	Wldmt-cross Frame	
9	64123-39	12	Blt-hex 1/2-13x1-1/4	
10	400410	2	Screw 1/2-13 X 1-3/4 Hex	
11	2720474	2	Spacer-caster Hub	
12	64123-215	2	Bolt-hex 3/4-10x7 1/2	
13	2188135	2	Dust Cover	
14	2720545.7	2	Wldmt-yoke Caster	
15	85010N	2	Zerk, 1/4-28 Str Self Thread	
16	148042	4	Ball Brg 1.00 10	
17	64163-64	6	Wshr 1.015x1.500x14ga	
18	64144-24	2	Snap Ring 1.00 Ext	
19	2720475-02	2	Assy-rim	
20	2188123-03	4	3/4 Id X 1-3/8 OD Ball Brg Fl	
21	35027N	2	Zerk Fitting	
22	2720475-01	2	Tire-13x5.00-6 Smooth Trd 4ply	
23	3970287	1	Decal-spring Tension	
24	2720475	2	Whl/hub-4ply 13x5.00-6	Includes Items 19 thru 22

Figure-2 Parking Brake System

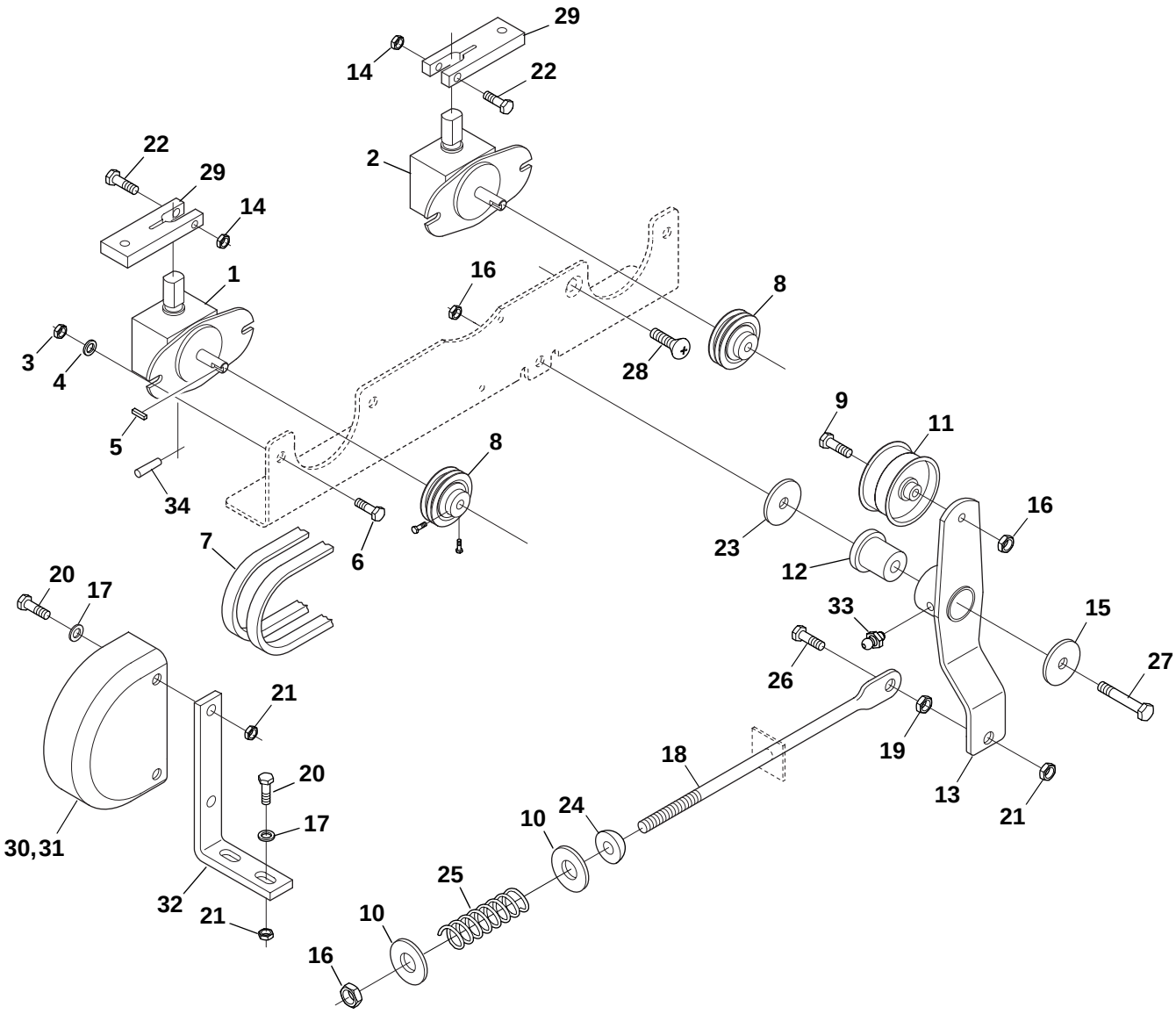
2720483



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1985104	1	Park Brake Cable Assy	Includes Items 15, 22 and 23.
2	64229-02	5	Lock Nut-nylon 5/16-18	
3	64123-56	2	Blt-hex 5/16-18x2	
4	64123-47	2	Blt-hex 5/16-18x1-1/4	
5	1985085-03	1	Valve & Cap Assy	
6	2720019	1	Brake Assy - RH	For Service See Figure-16
7	2720020	1	Brake Assy - LH	For Service See Figure-16
8	64123-24	4	Blt-hex 1/2-13x2	
9	2188149	2	Hub, Wheel and Disc	
10	447030	2	Wshr-lock External Tooth	
11	400410	4	Screw 1/2-13 X 1-3/4 Hex	
12	64220-02	10	Blt-whl 7/16-20x.75 75D	
13	1985085-02	1	Tire 24x12.00-12 NHS 4 Ply R	
14	64229-05	8	Lock Nut-nylon 1/2-13	
15	3970145	2	S Spacer	
16	554780	2	Key	
17	48228A	2	Cable Clip-insulated	
18	48228-2A	1	Cable Clip 3/4 w/instn	
19	64141-6	2	Nut-wlf 5/16-18	
20	64123-89	2	Blt-hex 1/4-20x3/4	
21	64229-01	2	Lock Nut-nylon 1/4-20	
22	1985027	1	S Cable	
23	1985028	1	S Cable	
24	1985020	2	Wheel Motor (Includes Items 16 and 25)	For Service See Figure-18
25	554779	2	Nut	
26	1985085-01	1	Rim Assy - 5 Hole	

Figure-3 Pump Drive System

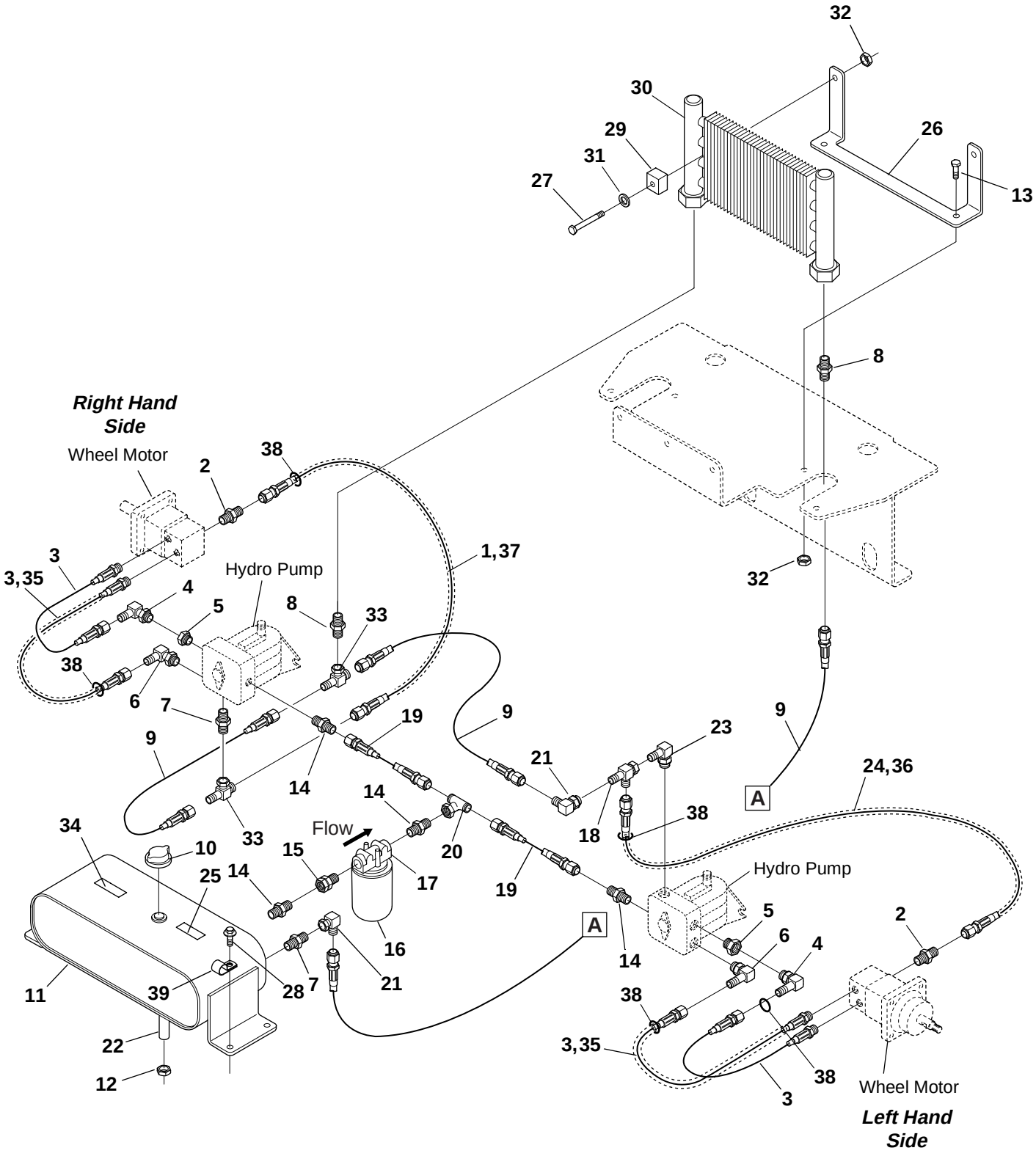
2720491



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3970228	1	Pump, Hydrostatic Left	
2	3970229	1	Pump, Hydrostatic Right	
3	64229-05	4	Lock Nut-nylon 1/2-13	
4	64163-67	4	Wshr .516x1x12ga	
5	64238-03	2	Key-metric 5mm Sq x 28mm	
6	400410	3	Screw 1/2-13 X 1-3/4 Hex	
7	3970216	1	Belt-matched Set Of Two	
8	3970133	2	Pulley-pump	Includes Set Screws
9	64123-67	1	Blt-hex 3/8-16x2	
10	64163-47	2	Wash.25/64x1x12 Ga	
11	1985034	1	Pulley-idler	
12	3970276	1	Shaft-pivot	
13	2256001.7	1	Wldmt-idler Arm	
14	64229-08	2	Lock Nut Nylon 5/16-24	
15	64163-53	1	Washer .391x1.50x9ga	
16	64229-03	3	Lock Nut-nylon 3/8-16	
17	64163-29	8	21/64x1x11ga.washer	
18	361282	1	Idler Rod	
19	64025-02	1	Nut-hex 5/16-18	
20	64123-68	8	Blt-hex 5/16-18x1	
21	64229-02	9	Lock Nut-nylon 5/16-18	
22	64123-214	2	Bolt-5/16-24 x 1-3/4	
23	319755	1	Washer	
24	360667	1	Adapter	
25	311870	1	Spring	
26	64123-47	1	Blt-hex 5/16-18x1-1/4	
27	64123-75	1	Blt-hex 3/8-16x3	
28	403778	1	Screw	
29	3970106	2	Arm-control	
30	3970188	1	Guard-pulley - LH	
31	3970244	1	Guard-pulley - RH	
32	2720036.7	2	Bracket-guard Mount	
33	85010N	1	Zerk, 1/4-28 Str Self Thread	
34	64252-01	1	Pin	

Figure-4 Hydraulic Drive System

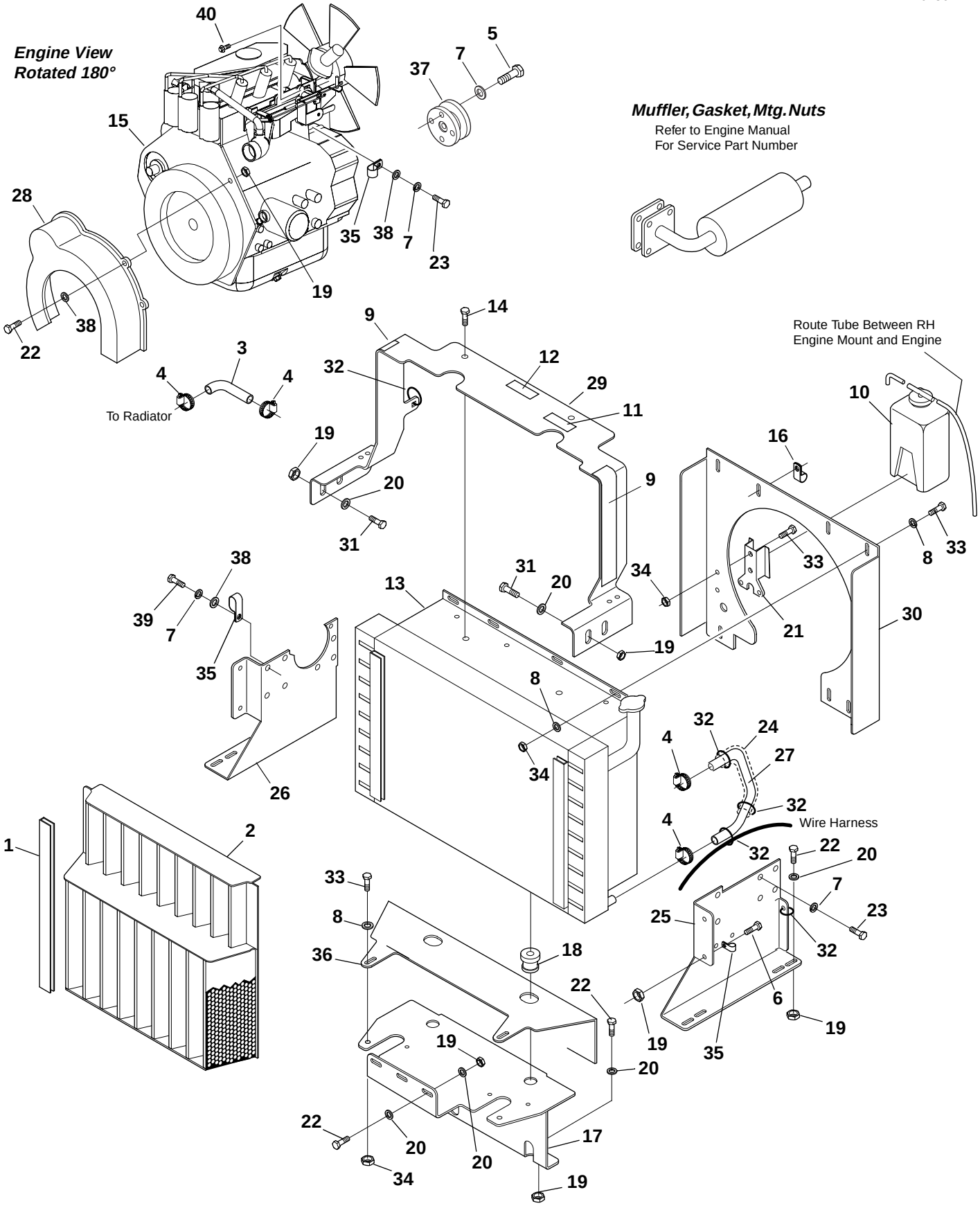
2720492



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1985101	1	Hose 20.25	
2	48089-04	2	Ftg-straight 4 ORB X 6 JIC	
3	1985073	4	Hose 21.5	
4	363512	2	Ftg 90 Elbow	
5	3970305	2	Ftg-str -08MORB -10FORB	
6	3970306	2	Elbow-90 Hydraulic	
7	342199	2	Ftg Connector	
8	69064-01	2	Ftg-NPTF 9/16-18	
9	1985100	3	Hose 13.5	
10	69216.7	1	Cap-reservoir	
11	2720641	1	S Tank-hyd Oil	Includes Items 10,25 and 34
12	118036	1	Hex Cap 3/8 Pipe	
13	64123-68	2	Blt-hex 5/16-18x1	
14	48089-03	4	Ftg-straight 8 ORB X 8 JIC	
15	3970308	1	Ftg Str -08MORB -08FJICS	
16	108046	1	AE-25 Filter	
17	3970303	1	Filter Head	
18	148059-01	1	Swivel Tee-run 3/8	
19	1985072	2	Hose 5.25	
20	2258003	1	Ftg Tee -8 MJIC Tube -8 JIC SW	
21	48086N	2	90 Degree Male Elbow	
22	48024-17A	1	Nipple-pipe 3/8 X 5	
23	108035-08	1	Elbow 3/8 Tube 3/4-16	
24	1985102	1	Hose 23	
25	2000691	1	Lbl - Hydr Oil Fill	
26	2720035.7	1	Mount, Heat Exchanger	
27	64123-56	2	Blt-hex 5/16-18x2	
28	64197-001	4	Blt-tdfm 5/16-18x3/4	
29	3970206	2	Block-mtg	
30	1985040	1	Heat Exchanger	
31	64163-29	2	21/64x1x11ga.washer	
32	64229-02	4	Lock Nut-nylon 5/16-18	
33	69066-01	2	Ftg,swivel Tee 9/16-18	
34	2000590	1	Decal, Battery	
35	108218-18	2	Sleeve-hose 1.42 X 19	
36	108218-16	1	Sleeve-hose 1.06 X 21	
37	108218-17	1	Sleeve-hose 1.06 X 18	
38	65286-4A	5	Tie,cable 11-5/8 Black	
39	48228-2A	2	Cable Clip 3/4 W/instn	

Figure-5 Engine Components

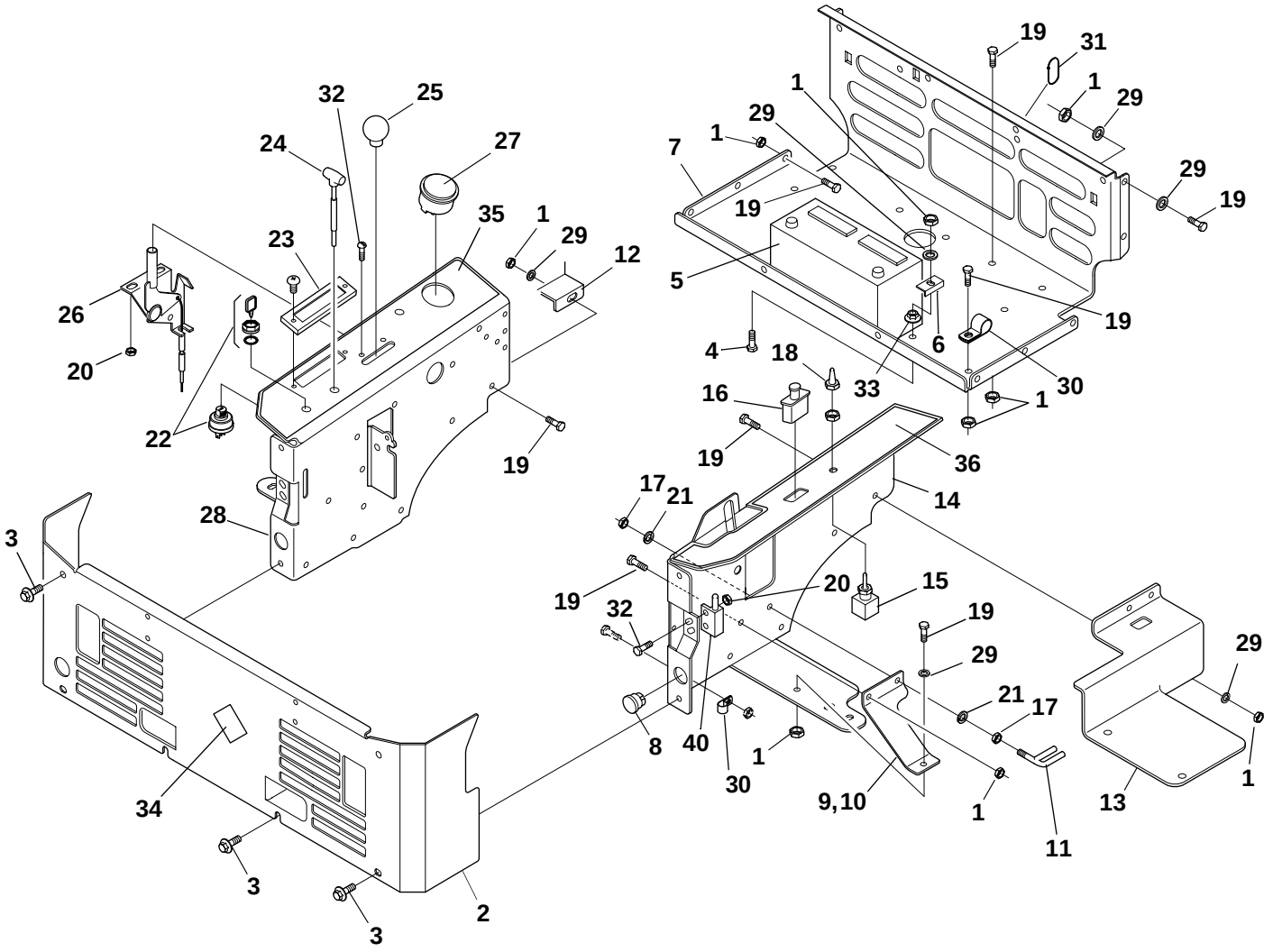
2720486



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	108074-13	2	Trim Strip	
2	1985051.7	1	Screen-debris	
3	2188232	1	Hose-upper Radiator	
4	108094-01	4	Clamp-hose SAE20	
5	64205-002	4	S Blt-metric M8-1.25x50	
6	64123-54	1	Blt-hex 5/16-18x3/4	
7	64006-02	20	Lockwshr-helical 5/16	
8	64163-03	16	Wshr-.256id X .62od x 18 Ga.	
9	3970326	2	Stip-rubber 2x12	
10	—	1	Water Recovery Bottle	See Engine Manual for Service Part
11	365956	1	Decal	
12	2000726	1	Label-fan Rotate	
13	2720023	1	Radiator Assembly	
14	64139-16	2	Blt-wlf 5/16-18x5/8	
15	2258000	1	Engine-BZT 31 LCG	See Engine Manual for Service Parts.
16	48228A	1	Clip	
17	2720024.7	1	Mount-radiator	
18	3970115	2	Grommet-rubber	
19	64229-02	22	Lock Nut-nylon 5/16-18	
20	64163-29	21	21/64x1x11ga.washer	
21	—	1	Bracket	See Engine Manual for Service Part
22	64123-68	17	Blt-hex 5/16-18x1	
23	64205-001	15	Blt-metric M8-1.25x20	
24	108218-15	1	Sleeve-hose 1.42x1BS	
25	2720021.7	1	Mount-engine LH	
26	2252067.7	1	Mount-engine RH	
27	2188208	1	Hose-lower Radiator	
28	3970193	1	Guard, Flywheel	
29	2720059	1	S Radiator Supt w/Label	Includes Item 11
30	2720044.7	1	Shroud-fan	
31	64123-47	4	Blt-hex 5/16-18x1-1/4	
32	65286-4A	4	Tie,cable 11-5/8 Black	
33	64123-89	11	Blt-hex 1/4-20x3/4	
34	64229-01	11	Lock Nut-nylon 1/4-20	
35	48228-2A	3	Cable Clip 3/4 w/Instn	
36	2720025.7	1	Shield	
37	3970105	1	Pulley-pump Drive	
38	64163-55	3	Wshr .328x.75x14 Ga	
39	A1103051	1	Bolt-M8-1.25x25	
40	64248-02	2	Blt-thd Frm M4x8 Taptite	

Figure-6 Operator Platform

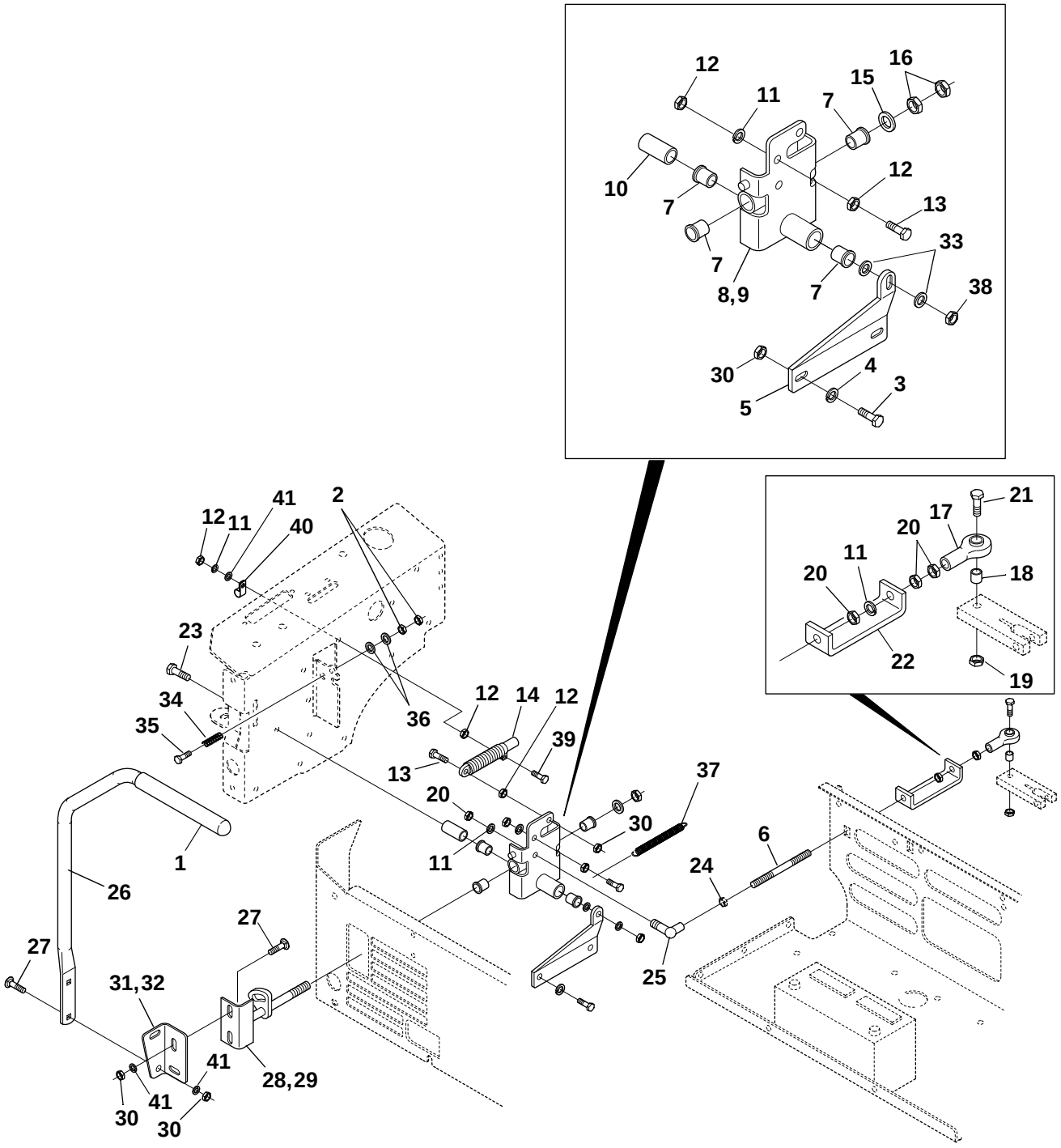
2720480



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	64229-02	20	Lock Nut-nylon 5/16-18	
2	2720055.5	1	Plate, Front	
3	64197-001	6	Blt-tdfm 5/16-18x3/4	
4	64139-15	2	Blt-wlf 5/16-18x2	
5	148074	1	Battery-BCI 26	
6	2720046.7	2	Bracket-battery Hold Down	
7	2252039.7	1	Bottom-operator Box	
8	3970107	1	Audio Alarm	
9	2252040.7	1	Brace-tank LH	
10	2252041.7	1	Brace-tank RH	
11	1985099	1	Scraper	
12	2252042.7	1	Support-tank RH	
13	2252043.7	1	Support-tank LH	
14	2720767	1	S Panel- LH Side	Includes Item 36
15	2188216	1	Switch-DPDT Momentary	
16	1985032	1	Switch-electric Clutch	
17	64025-02	2	Nut-hex 5/16-18	
18	2188233	1	Boot-toggle	
19	64123-68	20	Blt-hex 5/16-18x1	
20	64025-15	6	Nut-hex #10-24 KEPS	
21	64006-02	2	Lockwshr-helical 5/16	
22	1001958	1	Switch-ignition	Includes Items 37,38 and 39
23	3970102	1	Panel	See Electrical Schematic for Bulb Part No.
24	1985036	1	Choke Control Assembly	
25	3970180	1	Knob-throttle	
26	1985037	1	Throttle Control Assy	
27	48030N	1	Hour Meter Assembly	
28	2720766	1	S Panel-RH Side	Includes Item 35
29	64163-29	14	21/64x1x11ga.washer	
30	48228-2A	2	Cable Clip 3/4 w/instn	
31	65286-4A	5	Tie,cable 11-5/8 Black	
32	64152-49	6	Scr-slt Hh 10-24x3/4	
33	64141-6	2	Nut-wlf 5/16-18	
34	2000792	1	Label-Bunton Diamond	
35	2720054	1	Decal-right Console	
36	3970167	1	Decal-left Console	
37	5002102	1	Nut,black Nyon Face	
38	5002101	1	Bezel, Slotted Rubber	
39	5000039	1	Key	
40	108208	2	Switch, Dbl Pole	

Figure-7 Steering Mechanism

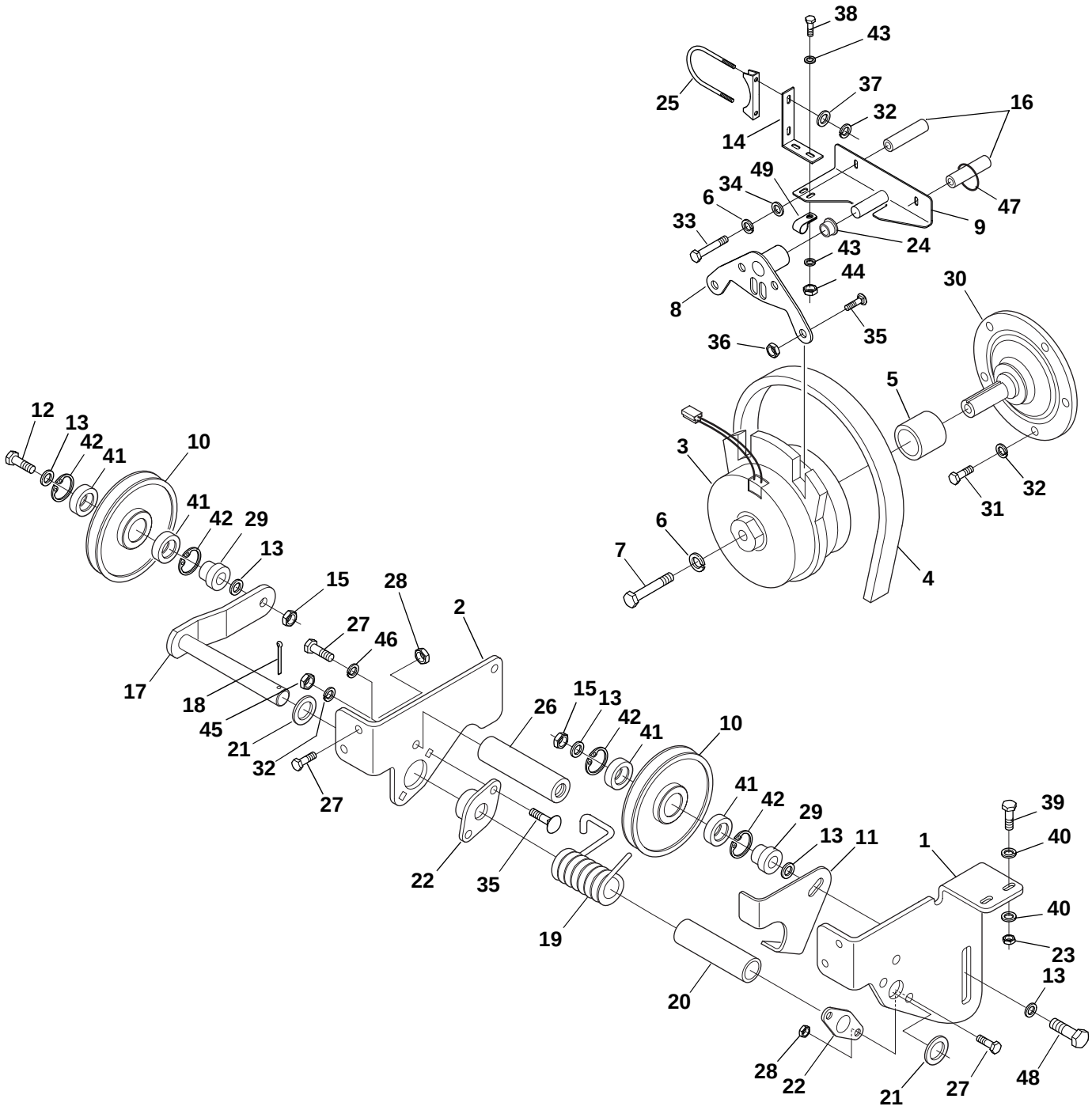
2720481



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3970296	2	Grip-black PVC	
2	64001-10	4	Nut-hex Jam 7/16-20	
3	64123-47	4	Blt-hex 5/16-18x1-1/4	
4	64163-29	4	21/64x1x11ga.washer	
5	2252033.7	2	Stabilizer-control	
6	3970113	2	Rod, Control	
7	3004113	8	Bushing	
8	2720031.7	1	Wldmt-block RH	
9	2720030.7	1	Wldmt-block LH	Not Shown
10	3970030	2	Spacer	
11	64006-02	8	Lockwshr-helical 5/16	
12	64025-02	10	Nut-hex 5/16-18	
13	64123-69	4	Blt-hex 5/16-18x1-1/2	
14	1985197	2	Gas Shock	
15	64163-67	2	Wshr .516x1x12ga	
16	64001-8	4	Nut-hex Jam,1/2-13	
17	1985098	2	Rod End-5/16-24 RH Thrd	
18	3970198	2	Spacer	
19	64229-08	2	Lock Nut Nylon 5/16-24	
20	64025-03	8	Nut-hex 5/16-24	
21	64123-214	2	Bolt-5/16-24 X 1-3/4	
22	2720029.7	2	Stop-linkage	
23	64123-139	2	Blt-hex 3/8-16x4	
24	64025-33	2	Nut-hex 5/16-24 LH	
25	1985105	2	Studded Rod End 5/16-24 LH Thr	
26	3970073.7	2	Lever-control	
27	64018-15	8	Blt-crg 5/16-18x1 G5	
28	2720032.7	1	Wldmt-control Shaft RH	
29	2720033.7	1	Wldmt-control Shaft LH	Not Shown
30	64229-02	14	Lock Nut-nylon 5/16-18	
31	2252034.7	1	Mount-control RH	
32	2252035.7	1	Mount-control LH	Not Shown
33	64163-47	4	Wshr.391x1.110x16 Ga	
34	3970274	2	Spring-compression	
35	64123-155	2	Blt-hex 7/16-20x3	
36	64163-43	4	Wshr.443/.454x1x11ga	
37	3970275	2	Spring-tension	
38	64229-03	2	Lock Nut-nylon 3/8-16	
39	64123-56	2	Blt-hex 5/16-18x2	
40	48228-2A	1	Cable Clip 3/4 w/instn	
41	64163-55	9	Wshr .328x.75x14 Ga	

Figure-8 Deck Drive System

2720482

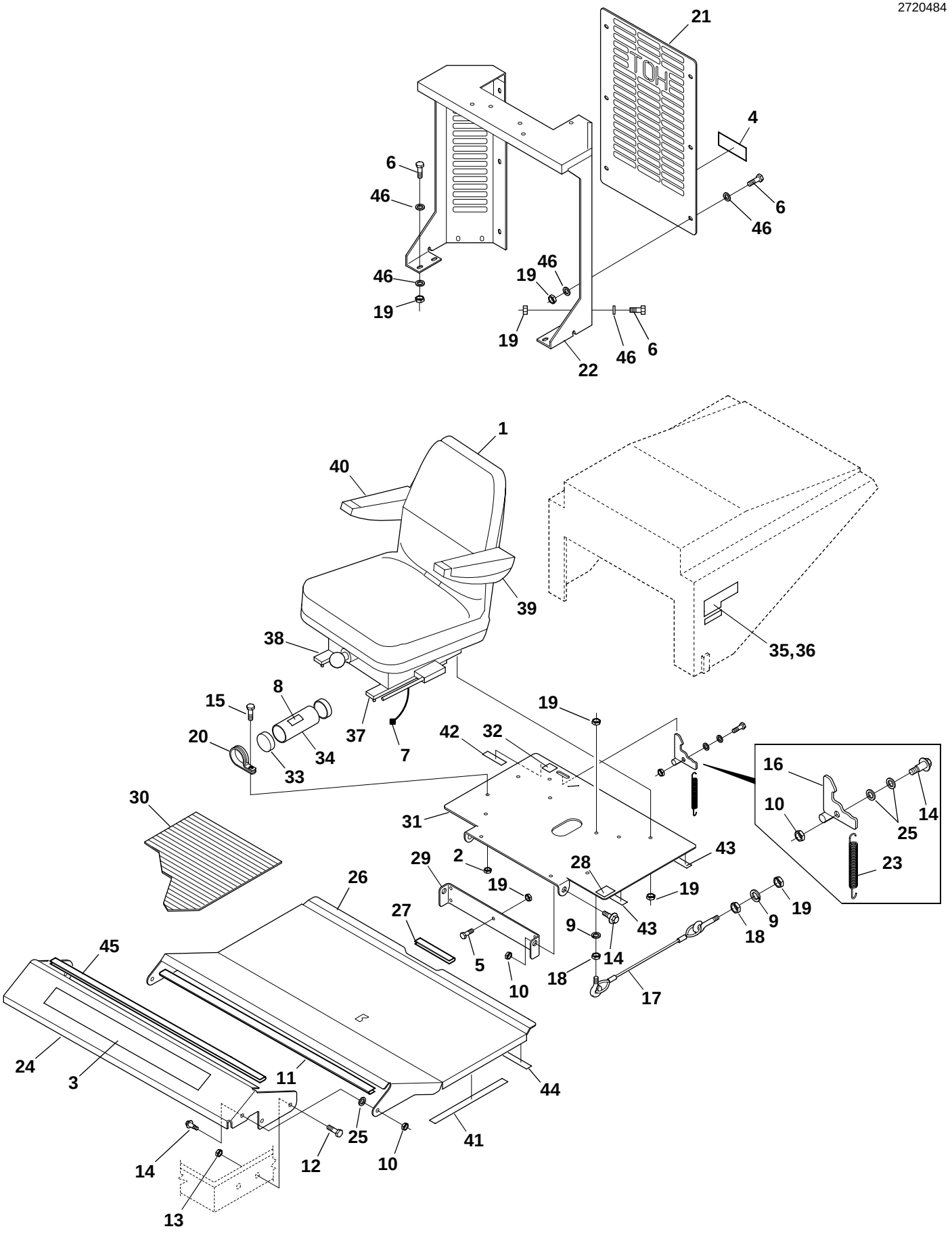


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2720037.7	1	Bracket-mule Idler Tight	
2	2720038.7	1	Bracket-mule Idler Slack	
3	2188151	1	Clutch, Electric	
4	3970128	1	Belt, Eng To Blade	
5	3970114	1	Spacer-clutch	
6	64006-06	3	Lockwshr-helical 7/16	
7	64123-216	1	Bolt-hex 7/16-20x2 1/4	
8	2186212.7	1	Wldmt-clutch Stop	
9	2186195.7	1	Wldmt-muffler Clutch Brkt	
10	2720042	2	Pulley-idler	
11	2720043.7	1	Keeper-belt	
12	64123-72	1	Blt-hex 1/2-13x2-1/2	
13	64163-67	5	Wshr .516x1x12ga	
14	2182541.7	1	Brkt-muffler Clamp	
15	64229-05	2	Lock Nut-nylon 1/2-13	
16	2183082	2	Spacer	
17	2720040.7	1	Wldmt-idler Arm	
18	64140-5	1	Cotter Pin-1/8x1-1/2	
19	3970066	1	Spring-torsion	
20	3970130	1	Sleeve	
21	64163-06	3	Wshr.768/.756x1.25x14g	
22	2188145	2	Bearing-.75id Brz Self Align	
23	64229-02	2	Lock Nut-nylon 5/16-18	
24	38304-03	1	Brg-flanged Plastic	
25	1985103	1	Clamp-muffler 1-1/2	Includes Nuts and Bracket
26	2720039	1	Spacer	
27	64123-50	8	Blt-hex 3/8-16x1	
28	64229-03	6	Lock Nut-nylon 3/8-16	
29	2720041	2	Adapter	
30	3970174.7	1	Shaft-PTO	
31	64205-001	5	Blt-metric M8-1.25x20	
32	64006-02	9	Lockwshr-helical 5/16	
33	64206-17	2	Bolt-m10-1.25x100	
34	64163-43	2	Wshr.443/.454x1x11ga	
35	64018-9	4	Blt-crg 5/16-18x3/4 G5	
36	64229-02	2	Lock Nut-nylon 5/16-18	
37	64163-55	2	Wshr .328x.75x14 Ga	
38	64123-114	2	Blt-hex 1/4-20x1	
39	64123-47	2	Blt-hex 5/16-18x1-1/4	
40	64163-29	4	21/64x1x11ga.washer	
41	48094A	2	Idler Pulley Bearing	Qty. Per Pulley
42	64144-14	2	Internal Retainer Ring	Qty. Per Pulley
43	64163-03	4	Wshr-.256id X .62od X 18 Ga.	
44	64229-01	2	Lock Nut-nylon 1/4-20	
45	64025-02	2	Nut-hex 5/16-18	
46	64006-03	2	Lockwshr-helical 3/8	
47	65286-4A	1	Tie, Cable	
48	64123-125	1	Blt-hex 1/2-13x2-3/4	
49	48228A	1	Cable Clip-insulated	

> Denotes change from previous revision

Figure-9 Body

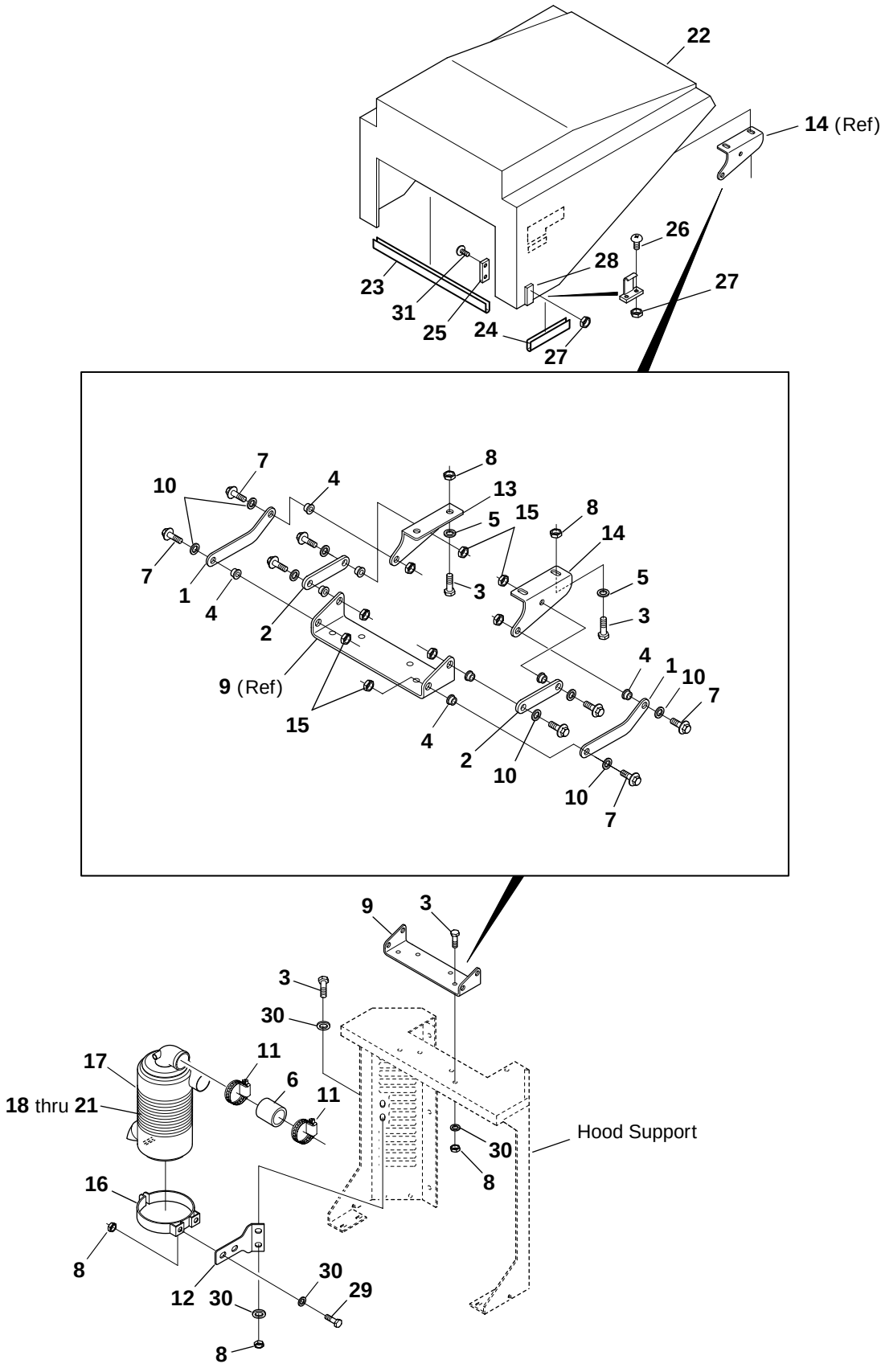
2720484



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1985025	1	Seat, Gray	Includes Switch Items 7 and 37 thru 40
2	64229-01	2	Lock Nut-nylon 1/4-20	
3	2000798	1	Label-Bunton Stripe	
4	361175	1	Decal	
5	64123-54	5	Blt-hex 5/16-18x3/4	
6	64123-68	14	Blt-hex 5/16-18x1	
7	158135-01	1	Switch-seat, NO	
8	2000735	1	Label-oper Man	
9	64006-02	2	Lockwshr-helical 5/16	
10	64229-03	5	Lock Nut-nylon 3/8-16	
11	108074-13	1	Flex Trim 36.0	
12	64123-117	4	Blt-hex 1/2-13x1-1/2	
13	64229-05	4	Lock Nut-nylon 1/2-13	
14	PL5013	5	Shoulder Bolt	
15	64123-89	2	Blt-hex 1/4-20x3/4	
16	2720062	1	Latch-seat Support	
17	1985059	1	Cable, Seat	
18	64025-02	2	Nut-hex 5/16-18	
19	64229-02	25	Lock Nut-nylon 5/16-18	
20	38542	2	Clamp-document Tube	
21	2720476	1	S-Guard-muffler w/Label	Includes Item 4
22	2720063.7	1	Wldmt-hood Support	
23	3970224	1	Spring	
24	2720056.5	1	Mount-floor Board	
25	366878	4	Plastic Washer	
26	2720057.5	1	Floor Board	
27	108074-13	1	Flex Trim 8.0	
28	340830	1	Decal	
29	2720060.5	1	Hinge-seat	
30	3970091	2	Floor Mats	
31	2720688	1	Plate-seat Support w/Labels	Includes Items 32,43, and 44
32	3970288	1	Decal, Latch Release	
33	38061A	2	Cap	
34	38541	1	Tube-document	
35	2720156	1	Decal, Hood Right Side	
36	2720157	1	Decal, Hood Left Side	
37	1985025-01	1	S-Adj Slide 7.00 w/studs	
38	1985025-02	1	S-Slide 7.00 Slave w/studs	
39	1985025-03	1	S-Armrest Asm-LH	
40	1985025-04	1	S-Armrest Asm-RH	
41	3970326	4	Stip-rubber 2x12	
42	3970324	1	Strip-rubber 2x4	
43	3970325	2	Strip-rubber 2x20	
44	3970327	2	Strip-rubber .75x12	
45	108074-15	1	Flex Trim 35.0	
46	64163-55	24	Wshr .328x.75x14 Ga	

Figure-10 Hood Hinge and Air Cleaner Ass'y

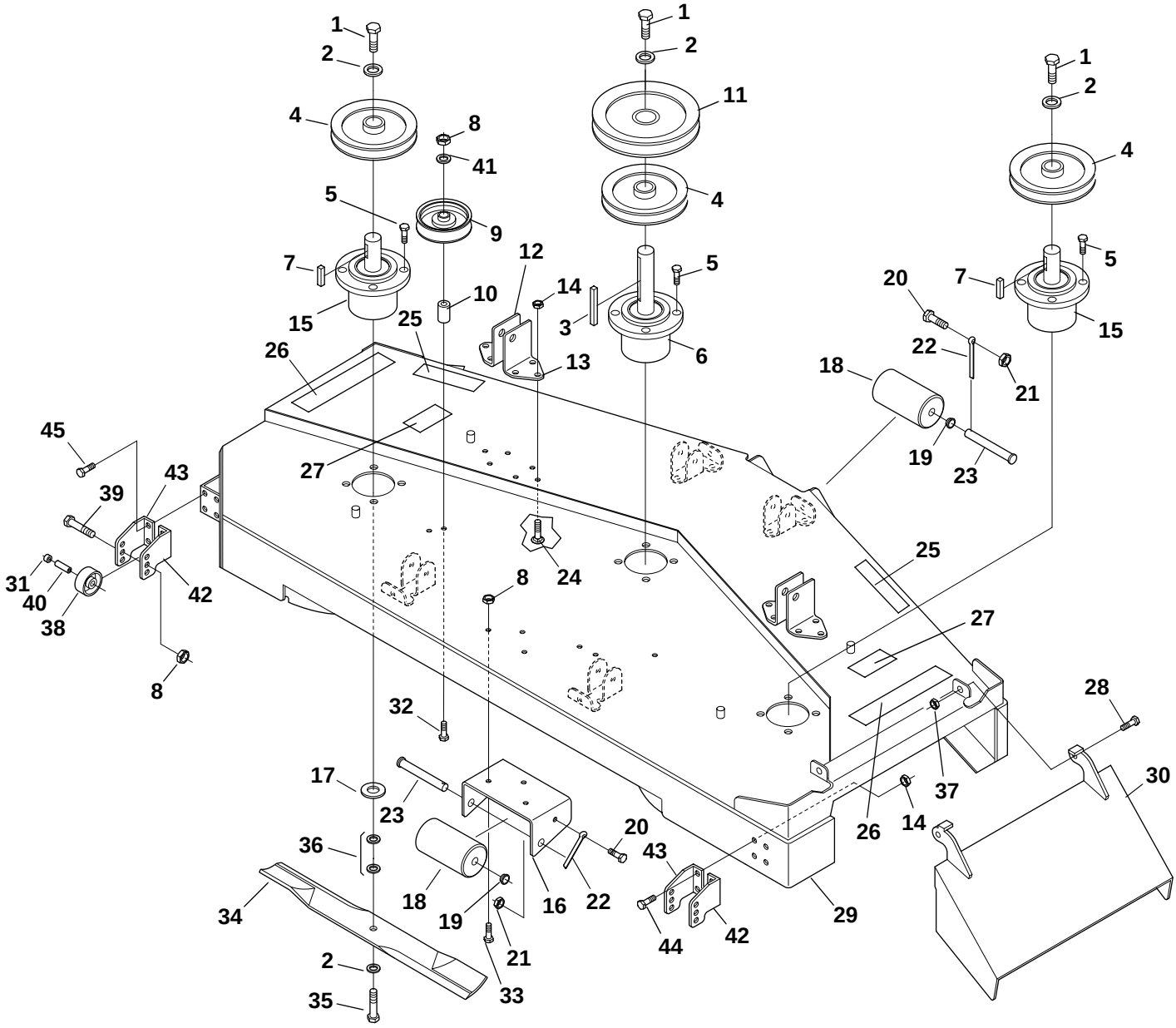
2720485



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2720068.7	2	Link-long	
2	2720069.7	2	Link-short	
3	64123-68	10	Blt-hex 5/16-18x1	
4	366877	8	Bearing, Nyliner	
5	64163-29	4	21/64x1x11ga.washer	
6	3970176	1	Hose - Air Cleaner	
7	PL5013	8	Shoulder Bolt	
8	64229-02	12	Lock Nut-nylon 5/16-18	
9	2720065.7	1	Bracket-hinge	
10	454025	8	Washer-spring .52x.87x.025-.13	
11	48383	2	Clamp-hose SAE32	
12	2252075.7	1	Brkt-air Cleaner	
13	2720066.7	1	Hinge, RH	
14	2720067.7	1	Hinge, LH	
15	64229-03	8	Lock Nut-nylon 3/8-16	
16	2720022	1	Clamp-air Cleaner	
17	1985039	1	4 Plastic Air Cleaner	
18	1985039-01	1	S-Element	
19	1985039-02	1	S-Dust Ejector Valve	
20	1985039-03	1	S-Cover	
21	1985039-04	2	S-Clip	
22	1985086	1	Hood, Fiberglass	
23	108074-15	1	Flex Trim 18.0	
24	108074-15	2	Flex Trim 4.0	
25	2720071	2	Plate-latch	
26	64152-38	4	Screw #8-32x3/4	
27	64229-09	8	Lock Nut-nylon Ins #8-32 UNC	
28	1985096	2	Latch Assy	
29	64123-54	2	Blt-hex 5/16-18x3/4	
30	64163-55	10	Wshr .328x.75x14 Ga	
31	64152-20	4	8-32x1/2 Mach Screw	

Figure-11 Cutting Deck

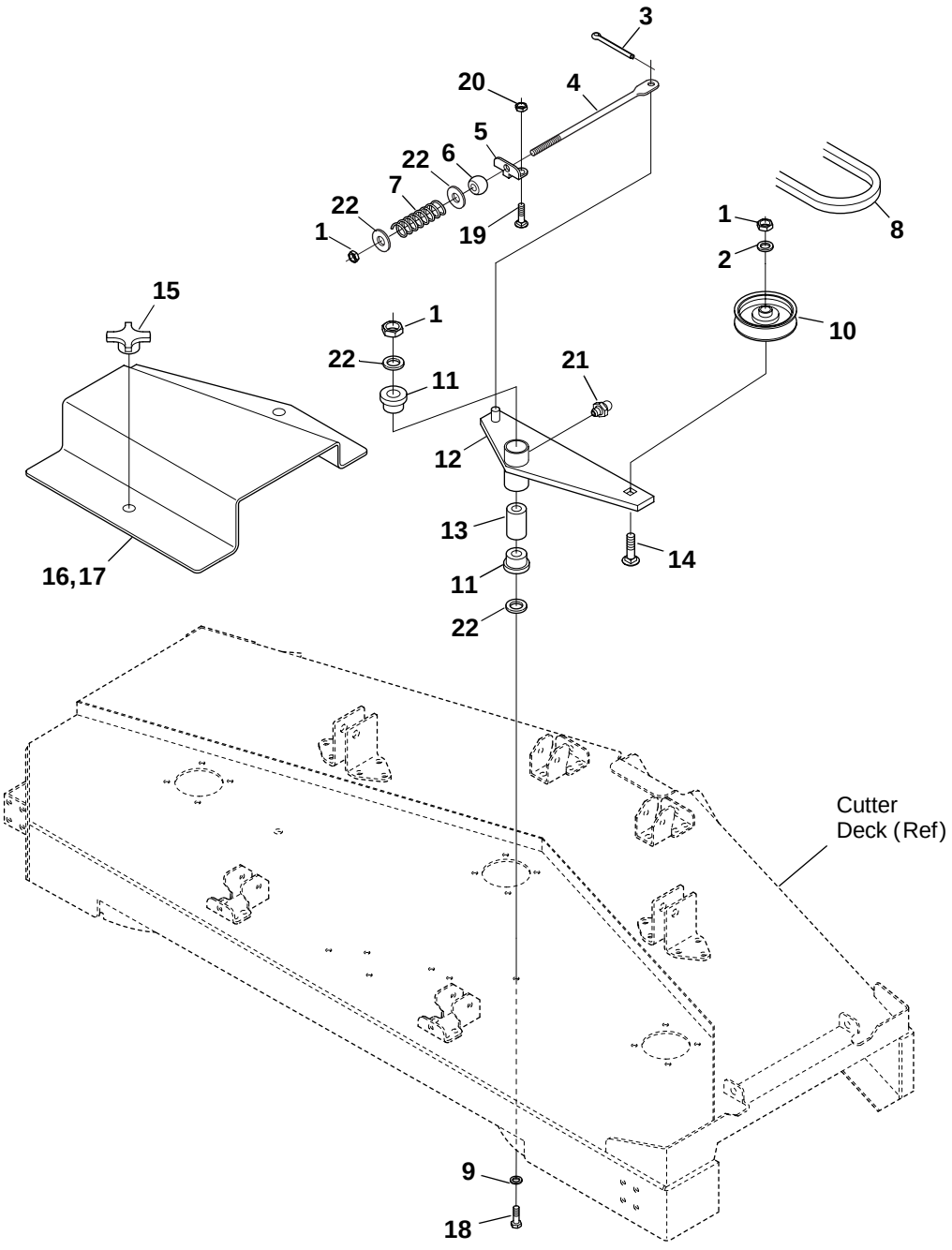
2720488



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	64123-208	3	Blt-hex 5/8-18x1.5	
2	64209-03	6	Spring Washer .67 ID	
3	64164-13	1	1/4x1/4x2 Sq Key	
4	198027	3	Pulley-6.00 Dia	
5	64197-003	12	Blt-tdfm 3/8-16x1.00	
6	2186207	1	S Assy-top Mount Spindle	See Figure-16 for Service Parts
7	64164-12	2	1/4x1/4x1 Sq End Key	
8	64229-03	8	Lock Nut-nylon 3/8-16	
9	1985108	1	Pulley-idler Stationary	
10	3970192	1	Spacer-stationary Idler	
11	2720213	1	Pulley-7.0 Deep Groove 1 Bore	
12	2720091.7	2	Bracket-arm Mtg LH	
13	2720092.7	2	Bracket-arm Mtg RH	
14	64229-02	16	Lock Nut-nylon 5/16-18	
15	2186205	2	S Assy-top Mount Spindle	See Figure-16 for Service Parts
16	2720090.7	1	Bracket-rear Roller	
17	2188162	3	Spacer-blade	
18	163425	2	Roller	Includes Item 19
19	552824	2	Bushing	
20	64123-89	2	Blt-hex 1/4-20x3/4	
21	64229-01	2	Lock Nut-nylon 1/4-20	
22	64140-14	2	Cotter Pin-1/4x3-1/2	
23	3002737	2	Shaft-roller	
24	64018-15	12	Blt-crg 5/16-18x1	
25	2000787	2	Decal-No Step	
26	2000677	2	Label-Danger/Warning	
27	2000577	2	Label, Warning	
28	64123-39	2	Blt-hex 1/2-13x1-1/4	
29	2720405	1	S Wldmt-deck w/labels	Includes Items 25,26 and 27
30	2720095.5	1	Wldmt-discharge Chute	
31	2720684	4	Bushing	
32	64123-88	1	Blt-hex 3/8-16x2-3/4	
33	64123-50	3	Blt-hex 3/8-16x1	
34	3970261	3	Blade- High Lift	
35	64123-209	3	Blt-hex 5/8-18x3.5	
36	64163-11	6	2x.625/.628x10 Ga. Wsh	
37	64229-05	2	Lock Nut-nylon 1/2-13	
38	3970242	4	Deck Wheel	
39	64123-217	4	Blt-hex 3/8-16x4-1/4	
40	2720685	4	Spacer-wheel	
41	64163-46	1	Wshr.383/.393x.88x7ga	
42	2720814.7	4	Bracket-roller Mtg LH	
43	2720813.7	4	Bracket-roller Mtg RH	
44	64123-68	4	Blt-hex 5/16-18x1	
45	64197-001	12	Blt-tdfm 5/16-18x3/4	

Figure-12 Idler Assembly and Belt Guards

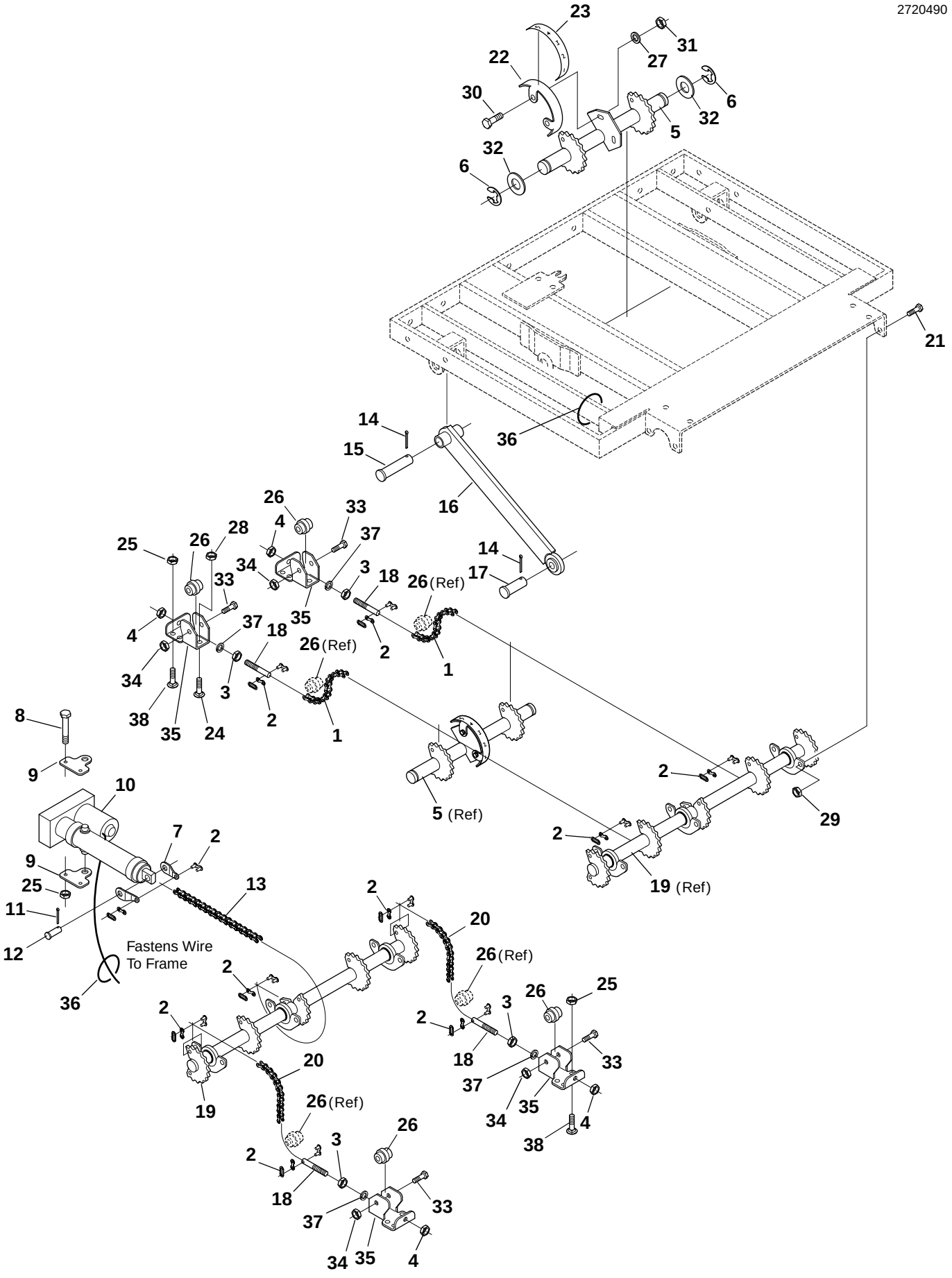
2720489



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	64229-03	3	Lock Nut-nylon 3/8-16	
2	64163-46	1	Wshr.383/.393x.88x7ga	
3	64140-1	1	Cotter Pin-1/8x1	
4	361282	1	Idler Rod	
5	2720099.7	1	Bracket-spring Mtg	
6	360667	1	Adapter	
7	311870	1	Spring	
8	3970215	1	Belt-blade To Blade	
9	64163-53	1	Washer .391x1.50x9ga	
10	3005164	1	V-idler Pulley	
11	352726	2	Bushing	
12	2720094.7	1	Wldmt-idler Arm	
13	3970189	1	Sleeve-idler Pivot	
14	64018-18	1	Blt-crg 3/8-16x2	
15	38524	4	Knob	
16	2720096.5	1	Belt Guard, RH	
17	2720097.5	1	Belt Guard, LH	
18	64123-171	1	Blt-hex 3/8-16x3-1/2	
19	64018-15	2	Blt-crg 5/16-18x1 G5	
20	64229-02	2	Lock Nut-nylon 5/16-18	
21	85010N	1	Zerk, 1/4-28 Str Self Thread	
22	64163-17	4	25/64 X 2 X 11ga Washr	

Figure-13 Deck Lift Mechanism

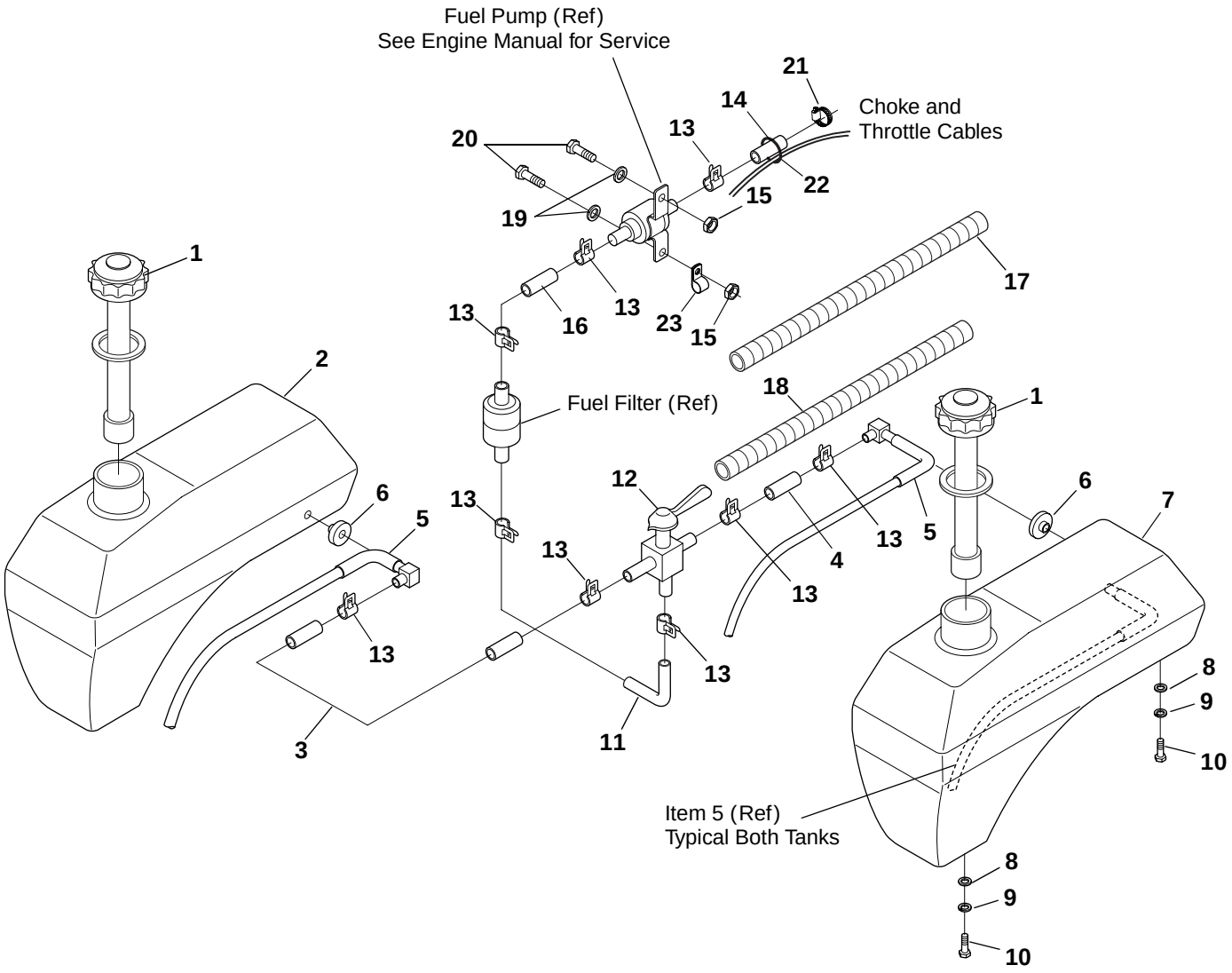
2720490



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	1985031	2	#50 Chain, 55 Pitch	
2	148062	10	Master Link #50 Chain	
3	443814	4	7/16-14 Hex Jam Nut ZP	
4	64229-04	4	S Lck Nut-nyln 7/16-14	
5	2256005.7	1	Wldmt-lift Shaft Front	
6	3970148	2	Retaining Ring	
7	3970129	2	Link-actuator	
8	64123-66	2	Blt-hex 5/16-18x3-1/2	
9	2720788.7	2	Cap-actuator	
9A	2720051.7	1	Cap-actuator	Serial No. 0099 and below
10	1985052	1	Actuator, Anti-rotate	
11	64140-1	1	Cotter Pin-1/8x1	
12	64188-48	1	Pin-clevis 1/2 x 1.25	
13	1985030	1	Chain-#50 29 Pitch	
14	64140-5	4	Cotter Pin-1/8x1-1/2	
15	64188-50	2	Pin-clevis 3/4 x 3-1/2	
16	1985033.7	2	Wldmt-Deck Arm	
17	64188-49	2	Pin-clevis 5/8 x 1-3/4	
18	3970144	4	Stud	
19	2256004.7	1	Wldmt-Lift Shaft-rear	
20	1985029	2	Chain	
21	64123-50	6	Blt-hex 3/8-16x1	
22	3970213.7	1	Bracket-height	
23	3970185	1	Decal, Cutheight	
24	64018-9	4	Blt-crg 5/16-18x3/4 G5	
25	64229-02	10	Lock Nut-nylon 5/16-18	
26	3970166	4	Spool, Chain Guide	
27	64163-03	2	Wshr-.256ID x .62OD X 18 Ga.	
28	64151-15	4	5/16-18 Cl Hex Nut	
29	64229-03	6	Lock Nut-nylon 3/8-16	
30	64123-89	2	Blt-hex 1/4-20x3/4	
31	64229-01	2	Lock Nut-nylon 1/4-20	
32	64163-64	AR	Wshr 1.015x1.500x14ga	
33	64123-72	4	Blt-hex 1/2-13x2-1/2	
34	64229-05	4	Lock Nut-nylon 1/2-13	
35	2720093.7	4	Bracket-Spool Mtg	
36	65286-4A	2	Tie,cable 11-5/8 Black	
37	64006-06	4	Lockwshr-helical 7/16	
38	64018-15	8	Blt-crg 5/16-18x1	

Figure-14 Fuel System

2720493



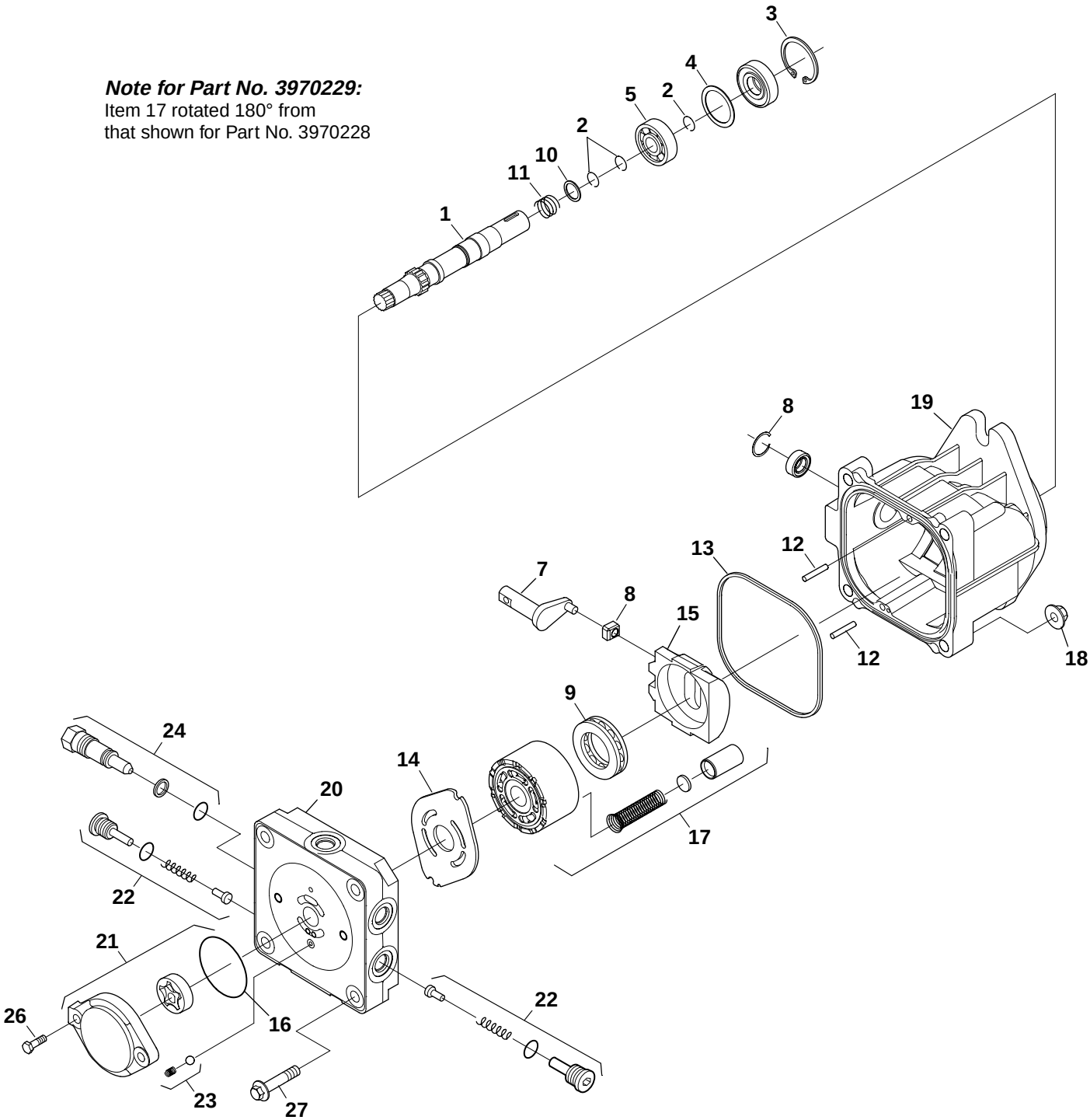
Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	3970231	2	Fuel Cap w/ Guage	
2	3970178	1	Fuel Tank, Right	Includes Item 6
3	09007-01	1	Hose, .25X.5 SAE 30RE, 10.8”	Right Hand Tank to Valve
4	09007-01	1	Hose, .25X.5 SAE 30RE, 57.0”	Left Hand Tank to Valve
5	3970191	2	Adapter-fuel	
6	48310	2	S Bushing,fuel Tank	
7	3970160	1	Fuel Tank, Left	Includes Item 6
8	64163-29	8	21/64x1x11ga.washer	
9	64006-02	8	Lockwshr-helical 5/16	
10	64123-54	8	Blt-hex 5/16-18x3/4	
11	09007-01	1	Hose, .25X.5 SAE 30RE, 2”	Valve to Fuel Filter
12	2188161	1	Valve-tank Selector	
13	88042N	9	Hose Clamp	
14	09007-01	1	Hose, .25X.5 SAE 30RE, 22.8”	Fuel Pump to Carburator
15	64229-01	2	Lock Nut-nylon 1/4-20	
16	09007-01	1	Hose, .25X.5 SAE 30RE, 9”	Fuel Filter to Fuel Pump
17	PL7494X	1	Loom, 21” Long	Fuel Pump to Carburator
18	PL7494X	1	Loom, 54” Long	Left Hand Tank to Valve
19	64163-03	2	Wshr-.256ID X .62OD X 18 Ga.	
20	64123-89	2	Blt-hex 1/4-20x3/4	
21	48540-01	1	Hose Clamp	
22	64286-4A	1	Tie, Cable	
23	48228A	1	Cable Clip-insulated	

Figure-15 Hydrostatic Pump

Part No. 3970228 - Left
Part No. 3970229 - Right

2720851

Note for Part No. 3970229:
Item 17 rotated 180° from
that shown for Part No. 3970228

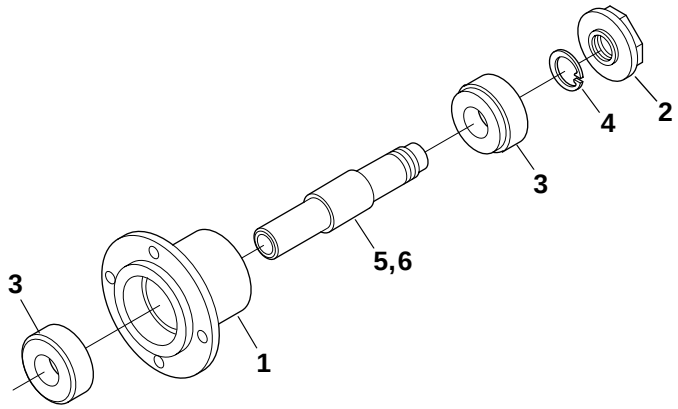


Item	Part No.	Qty.	Description	Hydro-Gear Part No.	Serial Numbers/Notes
1	3970228-1	1	S Shaft-pump	50602	
2	3970228-2	3	S Ring-retaining-wire	2000022	
3	3970228-3	1	S Ring-retaining	2000038	
4	3970228-4	1	S Spacer	2000023	
5	3970228-5	1	S Shaft-ball Bearing	2000032	
6	3970228-6	1	S Retaining Ring-trunnino Seal	50574	
7	3970228-7	1	S Arm-trunnion	2000014	
8	3970228-8	1	S Guide-slot	2000015	
9	3970228-9	1	S Guide-thrust Brg	50552	
10	3970228-10	1	S Block-thrust Washer	2000024	
11	3970228-11	1	S Block-spring	2000025	
12	3970228-12	2	S Pin	50641	
13	3970228-13	1	S O-Ring	50381	
14	3970228-14	1	S Plate-valve	50619	
15	3970228-15	1	S Plate-swash	50203	
16	3970228-16	1	S O-ring	9004100-1430	
17	3970228-17	1	S Cylinder Block Kit	70080	
18	3970228-18	4	S Nut-hex Flanged	50634	
19	3970228-19	1	S Housing Kit	2510065	
20	3970228-20	1	S Endcap Kit	2510066	With Poppets
21	3970228-21	1	S Charge Pump Kit	2510071	
22	3970228-22	1	S Check Valve Kit	2510027	
23	3970228-23	1	S Charge Relief Kit	70403	
24	3970228-24	1	S Bypass Valve Kit	2513030	
25	3970228-25	1	S Overhaul Seal Kit	2510073	Not Shown
26	64123-68	2	Blt-hex 5/16-18x1	9007200-3116	
27	3970228-26	2	S Hex Hd Screw-flanged	50633	

Figure-16 Spindle

2720502

Part No. 2186207
Part No. 2186205

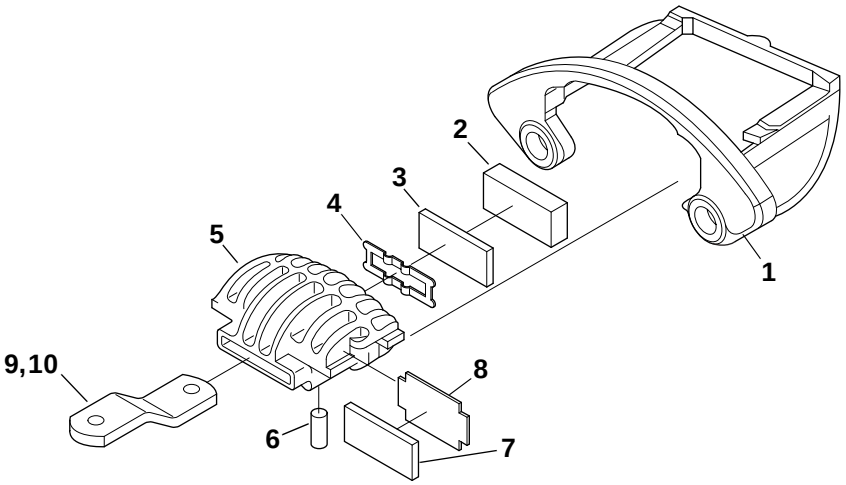


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2191000.7	1	Spindle, Housing	
2	38315	1	Nut-spindle	
3	38348-01	2	Bearing-spindle Sealed	
4	64144-38	1	Snap Ring	
5	2183070-01	1	Shaft-spindle	Used on Part No. 2186207
6	2183070-02	1	Shaft-spindle	Used on Part No. 2186205

Figure-17 Brake Assembly

2720494

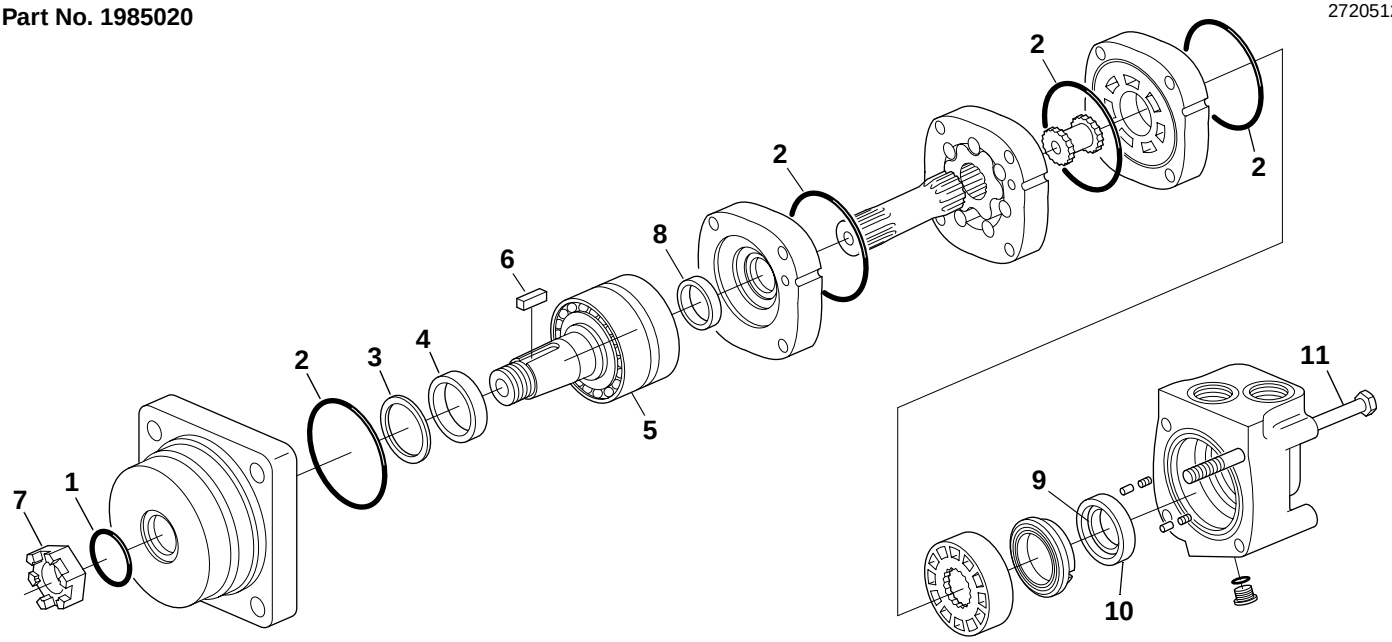
Part No. 2720019
Part No. 2720020



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	2188147-01	1	Bracket-Machined	
2	2188147-02	1	Pad-Cam Side	
3	2188147-03	1	Pad-Support	
4	2188147-04	1	Spring-Lever Retainer	
5	2188147-05	1	Housing	
6	2188147-07	1	Pivot Pin	
7	2188147-08	1	Pad-Carrier Side	
8	2188147-09	1	Pad-Support	
9	2720019-01	1	s Cam RH	
10	2720020-01	1	s Cam LH	

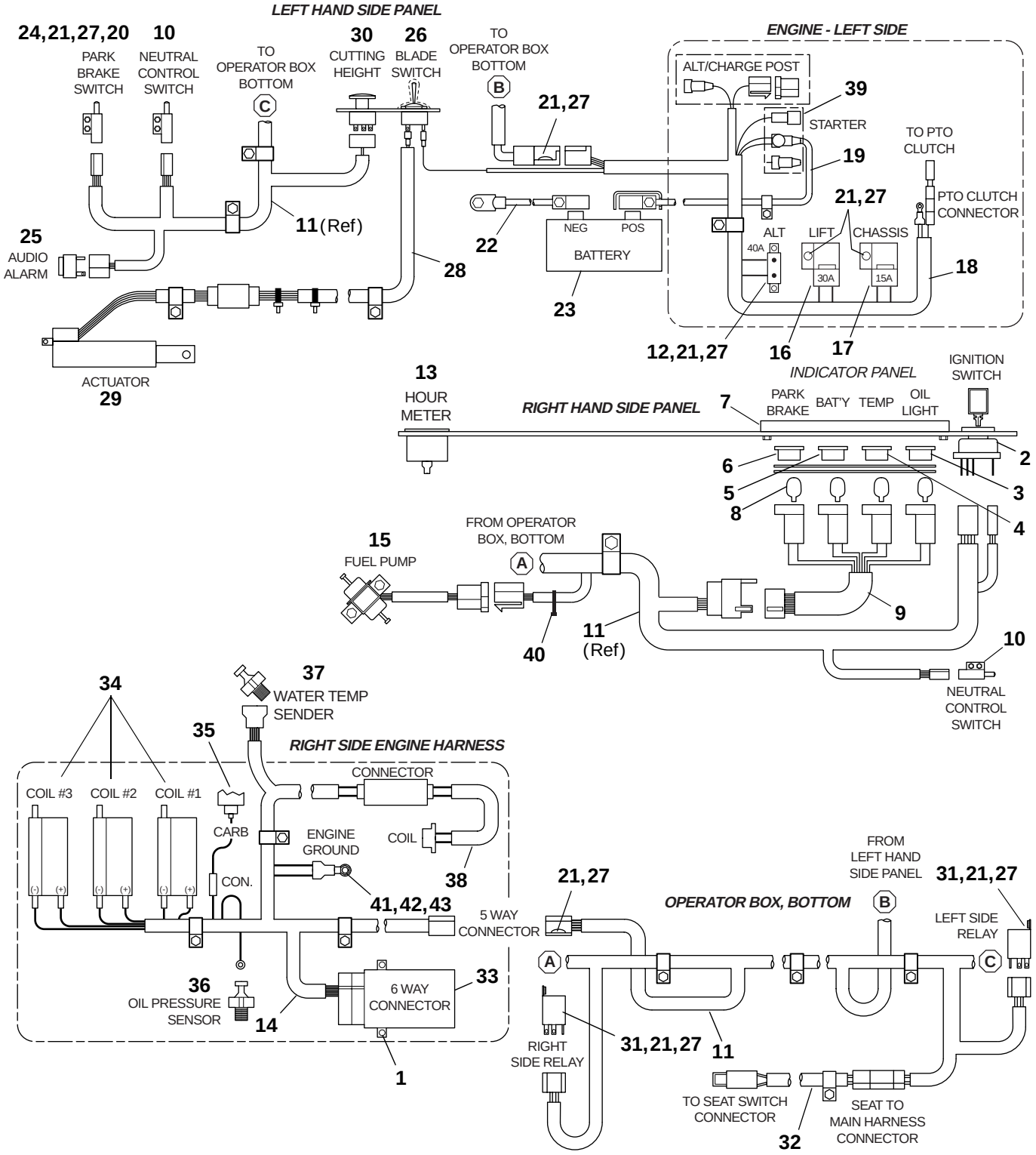
Part No. 1985020

2720512

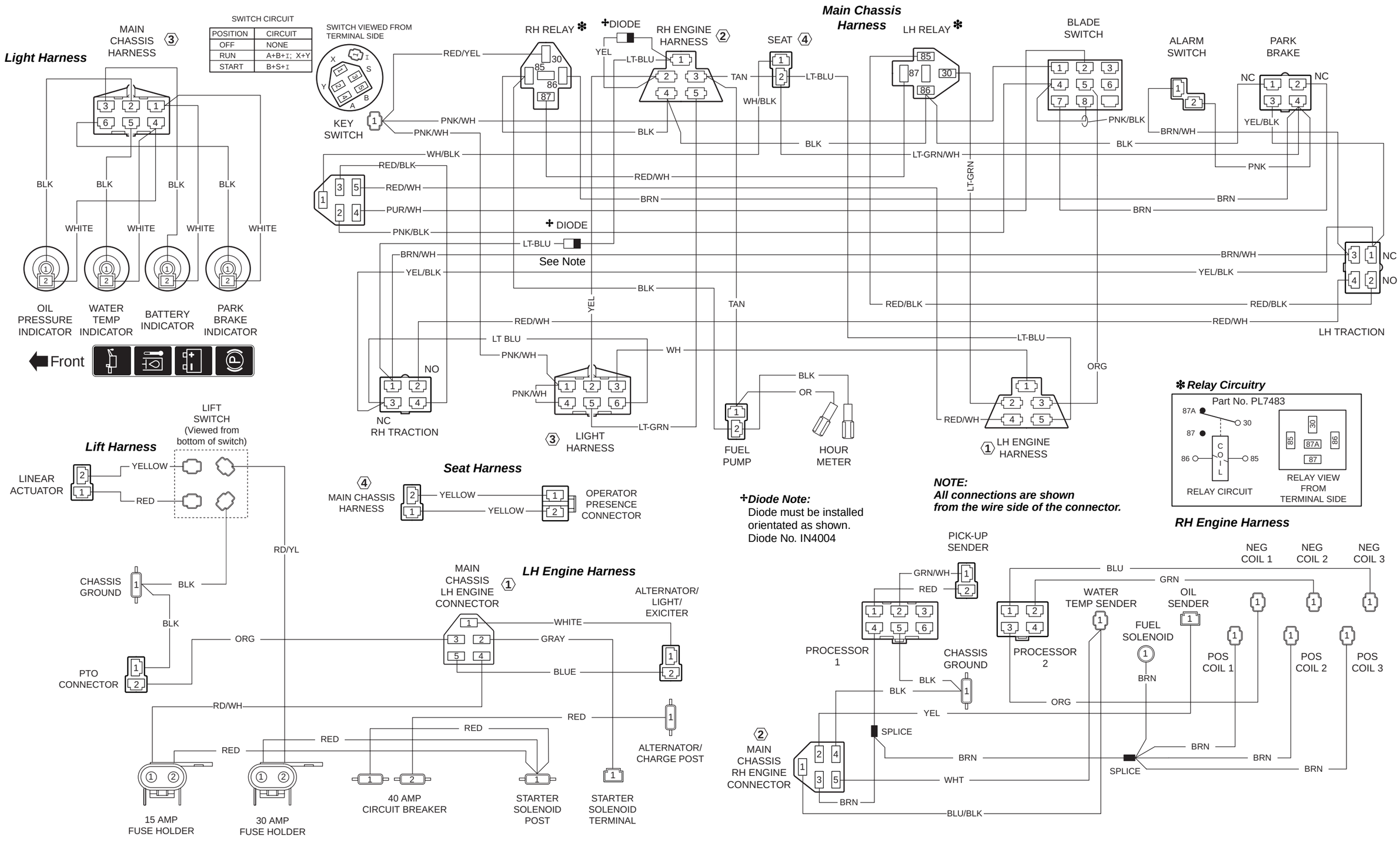


Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	—	1	Seal, Exclusion	Included in Seal Kit
2	—	4	Seal, 3” ID	Included in Seal Kit
3	—	1	Ring, Back-Up	Included in Seal Kit
4	—	1	Seal, Shaft	Included in Seal Kit
5	1985020-01	1	Shaft & Brg-eaton 12618-003	
6	554780	1	Key	
7	554779	1	Nut	
8	—	1	Seal, Shaft Face	Included in Seal Kit
9	—	1	Seal, Inner Face	Included in Seal Kit
10	—	1	Seal, Outer Face	Included in Seal Kit
11	1985020-02	4	Capscrew Eaton 14384-019	
12	1985020-03	1	Seal Kit Eaton 61258	Not Shown

Figure-19 Electrical Wiring Harness



Item	Part No.	Qty.	Description	Serial Numbers/Notes
1	64197-002	2	Blt-tdfm 1/4-20x3/4	
2	—	1	Switch-ignition (Includes Key)	See Figure-6
3	3970153	1	Oil Indicator	
4	3970154	1	Temperature Indicator	
5	3970104	1	Battery Indicator	
6	3970155	1	Parking Brake Indicator	
7	—	1	Warning Light Bezel Kit	See Figure-6
8	3970103	4	Light Bulb	
9	1985065	1	Harness-light	
10	—	2	Switch Dbl Pole	See Figure-6
11	2720049	1	Harness-chassis	
12	48524	1	Circuit Breaker 40A	
13	—	1	Hour Meter Assembly	See Figure-6
14	2720048	1	Harness-engine RH	
15	—		Fuel Pump	Refer to Engine Manual
16	148082-30	1	Fuse 30 Amp	
17	148082-15	1	Fuse 15 Amp	
18	2720047	1	Harness-engine LH	
19	1985077	1	Cable-battery Pos 58	
20	64163-60	1	Wshr .50x.203x18ga	
21	64152-49	12	Scr-slt Hh 10-24x3/4	
22	178083	1	Cable-battery Negative	
23	—	1	Battery	See Figure-6
24	2308094	1	Switch-NCNC Dbl Pole	
25	—	1	Audio Alarm	See Figure-6
26	—	1	Switch-DPDT Momentary	See Figure-6
27	64025-15	12	Nut-hex #10-24 KEPS	
28	1985063	1	Harness-lift	
29	—	1	Actuator, Anti-rotate	See Figure-13
30	—	1	Switch-electric Clutch	See Figure-6
31	PL7483	2	Relay	
32	1985064	1	Harness-seat	
33	—	1	Ignition Processor	Refer to Engine Manual
34	—	3	Spark Ignition Coils	Refer to Engine Manual
35	—	1	Fuel Shut-off Solenoid	Refer to Engine Manual
36	—	1	Oil Pressure Sender	Refer to Engine Manual
37	—	1	Hot Water Temperature Sender	Refer to Engine Manual
38	—	1	Ignition Trigger and Lead	Refer to Engine Manual
39	3970219	1	Cover-Insulator	
40	65286-4A	1	Tie, Cable	
41	64205-001	1	Blt-metric M8-1.25x20	
42	64163-55	1	Wshr .328x.75x14 Ga	
43	64006-02	1	Lockwshr-helical 5/16	


Main Chassis Harness
Light Harness
MAIN CHASSIS HARNESS 3
SWITCH CIRCUIT
POSITION | CIRCUIT
OFF | NONE
RUN | A+B+I; X+Y
START | B+S+I
SWITCH VIEWED FROM TERMINAL SIDE
KEY SWITCH
RH RELAY ✻
✛DIODE
RH ENGINE HARNESS 2
SEAT 4
LH RELAY ✻
BLADE SWITCH
ALARM SWITCH
PARK BRAKE
NC
NO
RED/YEL
PNK/WH
WH/BLK
RED/BLK
RED/WH
PUR/WH
PNK/BLK
LT-BLU
BRN/WH
YEL/BLK
BLK
YEL
TAN
WH/BLK
LT-GRN/WH
LT-GRN
PNK/BLK
BRN
✛ DIODE
See Note
WHITE
OIL PRESSURE INDICATOR
WATER TEMP INDICATOR
BATTERY INDICATOR
PARK BRAKE INDICATOR
Front
LH TRACTION
RED/BLK
LT BLU
WH
ORG
NC RH TRACTION
LIGHT HARNESS 3
FUEL PUMP
HOUR METER
LH ENGINE HARNESS 1
✻ Relay Circuitry
Part No. PL7483
87A
87
86
30
85
COIL
RELAY CIRCUIT
RELAY VIEW FROM TERMINAL SIDE
NOTE:
All connections are shown from the wire side of the connector.
LIFT SWITCH (Viewed from bottom of switch)
Lift Harness
LINEAR ACTUATOR
YELLOW
RED
RD/YL
CHASSIS GROUND
BLK
PTO CONNECTOR
RD/WH
15 AMP FUSE HOLDER
30 AMP FUSE HOLDER
Seat Harness
4
MAIN CHASSIS HARNESS
OPERATOR PRESENCE CONNECTOR
✛Diode Note:
Diode must be installed orientated as shown.
Diode No. IN4004
LH Engine Harness
MAIN CHASSIS LH ENGINE CONNECTOR 1
ALTERNATOR/ LIGHT/ EXICITER
ORG
GRAY
BLUE
RED
ALTERNATOR/ CHARGE POST
40 AMP CIRCUIT BREAKER
STARTER SOLENOID POST
STARTER SOLENOID TERMINAL
RH Engine Harness
PICK-UP SENDER
GRN/WH
PROCESSOR 1
PROCESSOR 2
CHASSIS GROUND
WATER TEMP SENDER
OIL SENDER
FUEL SOLENOID
POS COIL 1
POS COIL 2
POS COIL 3
NEG COIL 1
NEG COIL 2
NEG COIL 3
BLU
GRN
ORG
YEL
SPLICE
BRN
WHT
BLU/BLK
MAIN CHASSIS RH ENGINE CONNECTOR 2

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