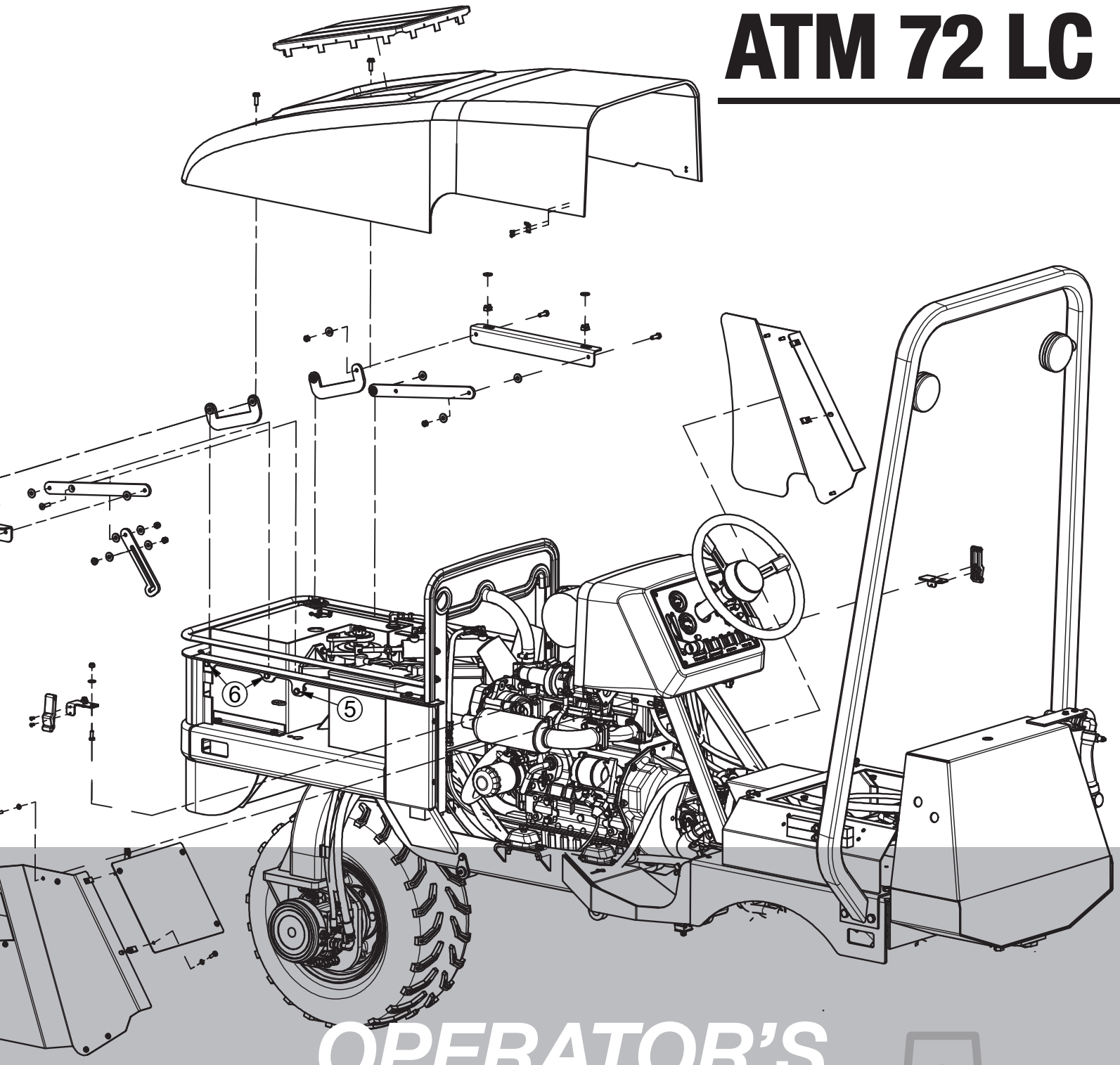
# ATM 72 LC




# OPERATOR'S MANUAL

All Terrain Mower®
72 LC

10-2022

HARPER INDUSTRIES INC

**Thank you for purchasing a Harper ATM 72.**

**TO THE OWNER OR OPERATOR:**

Please take time to read this manual carefully before operating the ATM 72. Each operator should be familiar with all safety precautions along with the operating and service procedures. Knowledge and familiarity will make a difference in how the machine performs.

As with all Harper products, the ATM 72 was developed through tough design and testing procedures to produce a sturdy, dependable machine. This manual gives assembly and operating information. Read and understand all instructional materials included with the unit and its components before operating or maintaining the equipment.

An All-Terrain Mower can present hazards to an operator who follows unsafe procedures in either the operation or maintenance of the unit. Therefore, **SAFETY WARNINGS** are present at certain locations in the text.

**SYMBOL:** ⚠ **SAFETY WARNING!** ⚠

**MEANING:** Failure to understand and obey this warning may result in injury to you or others. Whenever this symbol is used, please pay very close attention to the information presented, and make sure you fully understand. If you do not, contact your dealer or Harper Industries for clarification.

⚠ **SAFETY WARNING!** ⚠

**All shields and guards must be in place for proper and safe operation of this equipment. Where they are shown removed in this manual, it is for purposes of illustration and instruction only. Do not operate this equipment unless all shields and guards are in place.**

**WARNING**: Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel

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## LIMITED WARRANTY

Harper Industries, Inc. (HII) warrants to each purchaser of a new Harper ATM from an authorized dealer or representative, that such equipment is free of manufacturer's defects in workmanship and materials which appear while in normal service for a period of ONE YEAR commencing with delivery to the original user.

The obligation of HII under this warranty is expressly limited, at our option, to replacement or repair at a service facility designated by Harper Industries or at the manufacturing plant in Harper, KS. A part will be replaced after inspection discloses it to have been defective. This warranty does not apply to defects caused by damage or unreasonable use (including failure to provide reasonable and necessary maintenance, or by performing functions without genuine Harper ATM accessories) while in the possession of the consumer.

Warranty is limited to parts, labor and ground freight delivery of replacement parts. HII shall not be liable for the consequential damages of any kind, including but not limited to consequential labor costs or transportation charges in connection with replacement or repair of defective parts.

This warranty does not apply to parts subjected to misuse, abuse, alteration, improper or inadequate maintenance, or normal wear (including blades, filters, and battery).

Engines are not covered under this warranty. Refer to manufacturer's warranty for specific warranty information. Harper Industries, its agents or representatives, make or imply no other warranties.

Harper Industries makes no warranty with respect to trade accessories. They are subject to the warranties of their respective manufacturers.

ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. HII makes no other express warranty, nor is anyone authorized to make any on behalf of HII.

For further information please contact your nearest Harper ATM dealer.

# RECORDS

Date of Purchase _____ / _____ / _____

Dealer's Name _____

Dealer's Phone _____

Serial Number Machine _____

Serial Number Engine _____

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# Introduction

The objective of Harper Industries in designing the **ATM 72 LC** was to create a mowing machine that could function safely and comfortably on slopes and inclines. The result is an All-Terrain Mower that will automatically adjust itself to keep the operator in a vertical position on all slopes up to 34 degrees.

Driving with an automatic leveling device will be a new and different experience. After several minutes of driving, the smooth control and sturdy feel will become comfortable to you. The security of always sitting upright and the feel of powerful, positive traction will give you confidence and comfort in most mowing situations.

However, we urge **EXTREME CAUTION** or else your confidence in these features get you into trouble.

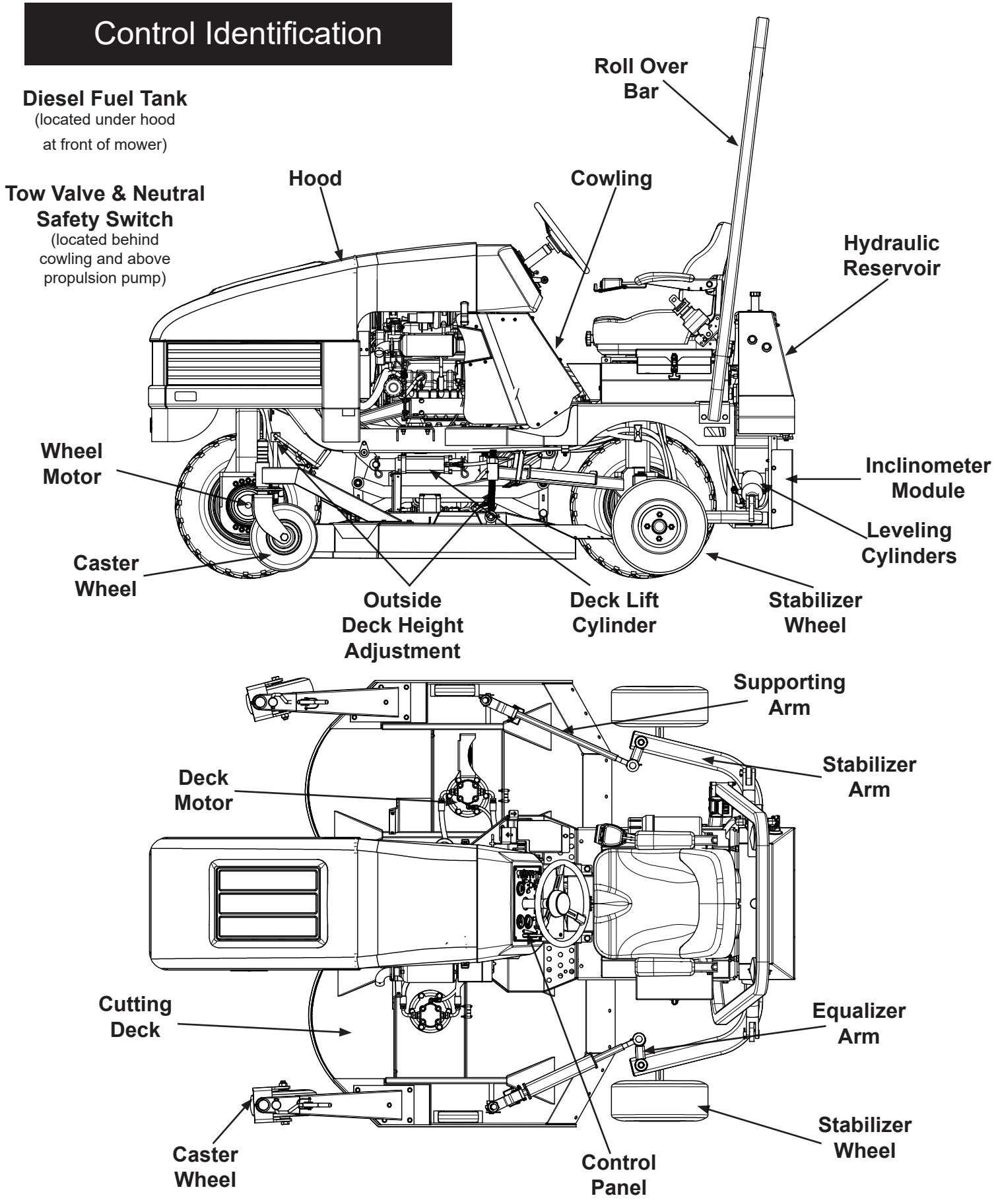
**REMEMBER:** The features of the ATM 72 cannot replace good common sense.

# Specifications

| | |
|---|---|
| **Power** | Diesel - Kubota V1505-E4B 24.8 HP @ 2300 RPM |
| **Main Frame** | Welded and formed steel frame |
| **Decks** | • 2 - 36” decks (72” total cutting width)<br>• Independently free floating, with rear discharge<br>• Constructed of reinforced 10 gauge steel |
| **Cutting Height** | 3 - 6” adjustable cutting height |
| **Hydraulics** | • Direct hydraulic blade drive (no belts or gear boxes)<br>• Poclain hydrostat - PM10 variable displacement axial piston pump<br>• Poclain high efficiency axial piston wheel motors with integrated parking brake.<br>• Hydraulic filter - 3 micron with indicator<br>• Hydraulic oil cooler |
| **Speed** | • 0-7 MPH ground speed<br>• Foot operated speed control - self-centering to neutral |
| **Options** | • Incline Meter Assembly - Part # 815052<br>• Factory Install Wheel Weight Kit - Part # 801005<br>• Customer Install Wheel Weight Kit - Part # 801004<br>• White Canopy - Part # 802039<br>• Red Canopy - Part # 802040 |
| **Tires** | Drive Tire: 25” x 11-12 - 6 ply<br>Stabilizer Tire: 16.5” x 6.5 x 8” foam filled<br>Deck Caster Tire: 11” x 4.00 x 5” foam filled |
| **Steering** | Power steering with automotive type steering wheel |
| **Seat** | Adjustable ride suspension, arm rests, and retractable seat belt |
| **Electrical** | 12 volt, 40 Amp Electrical System |
| **Dimensions** | Length – 107 in., Height – 90 in., Width – 74.5 in. |
| **Weight** | 2480 lbs. |
| **Liquid Capacities** | Fuel – 10 Gallon; Hydraulic Fluid – 11.5 Gallon |
| **Safety & Hydraulic Oil** | • Includes Certified ROPS with hazard lights (meets ANSI/OPEI B71.4 standards)<br>• Seat belt<br>• *Crown AW46*; ISO 46 Hydraulic Oil |

**NOTE**: *Following publication of this manual, certain changes in standard equipment and/or options may have occurred which would not be included in these pages. Your Harper dealer is the best source for up-to-date information.*

# Control Identification



**Throttle** – adjust engine speed with throttle. Start at low throttle, allow engine to warm up, then operate unit at full throttle.

**Mower Switch** – turns the deck blades on and off allowing user to cut the grass.

**Deck Lift Switch** – raises and lowers the mower deck.

**Lights Switch** – turns on headlights.

**Ignition** – turn the key to the left until the pre-heat light turns off. Then, turn key to right to start unit. Remove key when unit is not in use. Never leave unit unattended with key in ignition.

**Park Brake** – set park brake when unit is not in use or is parked on an incline. Make sure park brake is disengaged before operation.

**Momentary Reset Switch**– resets the auto level function after the machine has been locked out. Once the machine is level, the reset button can be pushed to turn on the auto level function.

**Mower Deck Light** – is on when the mower blades are engaged.

**Engine Pre-Heat Light** – turns on when the key is in the pre-heat position.

**Engine Temp Light** – turns on when the engine temp exceeds 215° F.

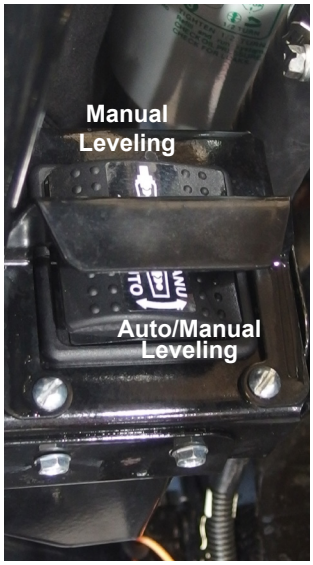
**Hydraulic Level Light** – turns on when the hydraulic oil is low.

**Leveling Lockout Light** – turns on when the auto level function has been locked out.

**Battery Light** – is on when the charging system voltage is low.

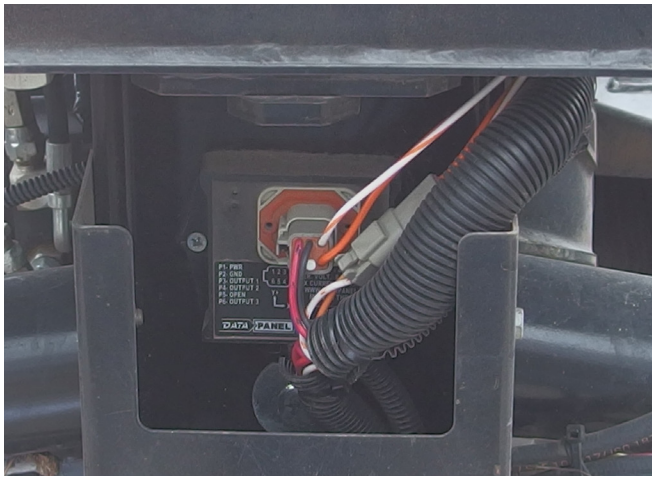
**Engine Oil Light** – turns on when the oil pressure drops below 7 psi.

**Parking Brake Light** – is on when the park brake is applied



**Manual Leveling Switch** – one is located on the arm rest and the other on the ROPS. Both of these switches perform the same function. One is intended to be used while in the operator's seat and the other for when standing behind the machine. They are used to manually tilt the machine left or right.

**Auto/Manual Leveling Switch** – determines if the machine is leveled automatically using the signal from the inclinometer module or leveled only using the manual leveling switch.



**Inclinometer Module** – senses if the machine is off center/vertical**.** The machine can lean to either side up to 34° before reaching its limit.

- The inclinometer module includes a dual axis (XY) accelerometer. It measures the force caused by movement of the sensor (acceleration). Gravity puts a force on the sensing elements that can be measured. The sensor is an analog device with a voltage for X and a voltage for Y. The module uses the voltage outputs from the sensor to determine the angle of the machine.
- When the inclinometer module measures an angle 4 degrees or greater from center, it sends a +12 V signal to the hydraulic valve to operate the appropriate leveling cylinder to return the machine to an upright position.

**SAFETY WARNING!**

**Do not leave ATM 72LC unattended, or attempt any service or inspection unless the machine has come to a complete stop and the engine has been shut off.**

# Safety Guidelines

**Equipment & Controls**

- **Read and understand this manual.**
- Altering this equipment in any manner which adversely affects its operation, performance, durability, or use will void the warranty and may cause hazardous conditions.
- Know the location and function of all controls and how to stop this equipment quickly in an emergency before you operate the equipment.
- Keep all nuts, bolts and screws tight to help ensure safe operation of this equipment.
- Use genuine factory parts or parts with equivalent characteristics, including type, strength and material. Failure to do so may result in product malfunction and possible injury to the operator and/or others.
- If hardware is not secure, or if some of the hardware is over-tightened, equipment failure may result, posing possible safety hazards.
- To prevent possible eye injury, always wear SAFETY GLASSES while operating equipment.
- Always wear a respirator when working in dry/dusty conditions.

**Safety Decals**

- If safety related or instructional decals become illegible or are removed, replace them immediately. New decals may be obtained from your local Harper Dealer.
- If you replace parts that have such decals attached to them, make sure the decals are replaced with current versions, and are on the replacement parts before the machine is operated again.

**Diesel Fuel**

- Always use an approved container for transporting diesel fuel.
- Do not allow open flames or sparks while performing maintenance or refueling.
- Never remove fuel tank cap or add fuel when engine is running or while it is hot.
- Only use ultra low sulfur diesel.
- Never fill fuel tank indoors. Fumes are heavy and will sink to the lowest point, collect and become hazardous.
- Wipe up spilled fuel immediately.
- Do not store fuel in a room with an appliance that has a gas pilot or electrical switch that may cause sparks.
- Always store diesel outside in a safety can (a can with flame arrestor and pressure relief valve in pour spout).
- Never store the equipment with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- Be certain to provide adequate ventilation if an engine must be run indoors - exhaust fumes are dangerous.

**⚠ SAFETY WARNING! ⚠**

**Diesel fuel is extremely flammable and can be highly explosive.**

**Guards & Shields**

- Keep all safety devices in place.
- Replace all worn, damaged, unusable, missing or lost safety shields and guards before operating the equipment.
- Keep the equipment in good operating condition.

**Battery**

**SAFETY WARNING!**

**Batteries can produce explosive gas. Use extreme caution when working on the battery.**

- Ventilate when charging battery or using in an enclosed space.
- DO NOT produce sparks from cable clamps, tools, or other sources; and DO NOT allow flames or smoking in the vicinity of the battery.
- Shield eyes when working near battery.

**Hydraulics**

**SAFETY WARNING!**

**Escaping fluid under pressure can penetrate skin causing serious injury.**

**To prevent serious injury or death:**

- Relieve pressure on system before repairing, adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks.
- Use wood or cardboard instead of hands when looking for leaks.
- Keep all components in good repair.
- Do not use any type of heat (welding, soldering, cutting torch, etc) near pressurized lines.

**Safety Interlocks/Wiring Logic**

- To start the machine, it must be in neutral and the blades must be off.
- To turn the mower blades on, the operator must be in the seat, and the hydraulic oil temperature must be below 190° F.
- There is a 2 second time delay added to the seat switch to account for bounce.
- The park break is applied when the operator is out of the seat.
- Leveling

  1. Valves on the cylinders are open when in auto mode or when the manual switch is activated to level the machine.
  2. If the inclinometer senses that the machine is not stable or that the machine has changed angle at a quick rate, the valves on the leveling cylinders are closed to lock the machine in its current position. When this happens, the leveling lockout indicator light on the dash will be illuminated. To reset the auto level function, press the momentary reset switch on the dash.

**Before Operation**

- Before operating this equipment, read and understand the Owner's Manual.
- Do not allow children to operate this machine.
- Wear approved eye and ear protection and other appropriate safety equipment while operating the machine.
- Check tire pressure and fill to specifications.
- Engine settings are preset and should not be changed; any change can damage moving parts and void the warranty.
- Before starting the machine, visually inspect all nuts, bolts and other fasteners to see that they are properly secured. Nuts, bolts and other fasteners should be checked every 8 to 10 hours of operation for proper alignment and tightness.
- Replace damaged or missing safety decals.
- Use factory authorized parts or their equivalent.
- Make sure that all bearings or hinging parts are greased and or oiled properly.

**During Operation**

- Always keep a fire extinguisher near the mower during operation.
- Keep clothing and all body parts away from rotating parts.
- Keep the engine area clean from debris and other accumulations to lessen the possibility of fire.

# Maintenance

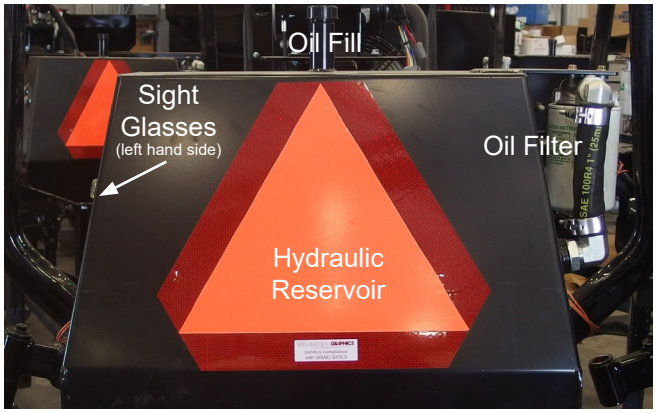
**Hydraulic System**

- The hydraulic system of the ATM72LC is filled at the factory with Crown AW 46 hydraulic oil that has an ISO of 46.
- The ATM72LC has a 3 micron, beta rated hydraulic oil filter designed for long life.

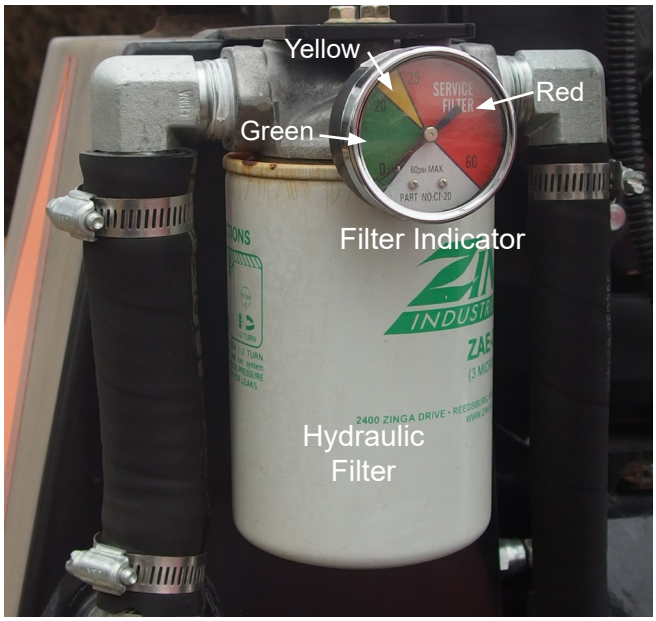
The following list of hydraulic fluids are compatible and can be mixed with Crown hydraulic fluid. MIXING OTHER OILS THAT ARE NOT INCLUDED ON THIS LIST COULD CAUSE GELLING AND DAMAGE TO THE HYDRAULIC COMPONENTS. If another type of oil is desired, then the system must be completely drained and flushed first.

**Appropriate replacements:**
**ISO 46:** Recommend for running in ambient air temperatures of 32°F-110°F, and it contains a kinematic viscosity rating around 46 cSt at 40°C. (1cSt = 1mm²/s)

- Mobil DTE 25
- Mobil DTE 15M
- Amoco Rykon Premium Oil ISO 46
- Chevron Rykon Premium Oil ISO 46
- Conoco Hydroclear AW MV 46
- Exxon Univis N 46
- Pennzoil AWX MV 46
- Shell Tellus 52 M46
- Shell Tellus 52 V46
- Texaco Rando HDZ 46

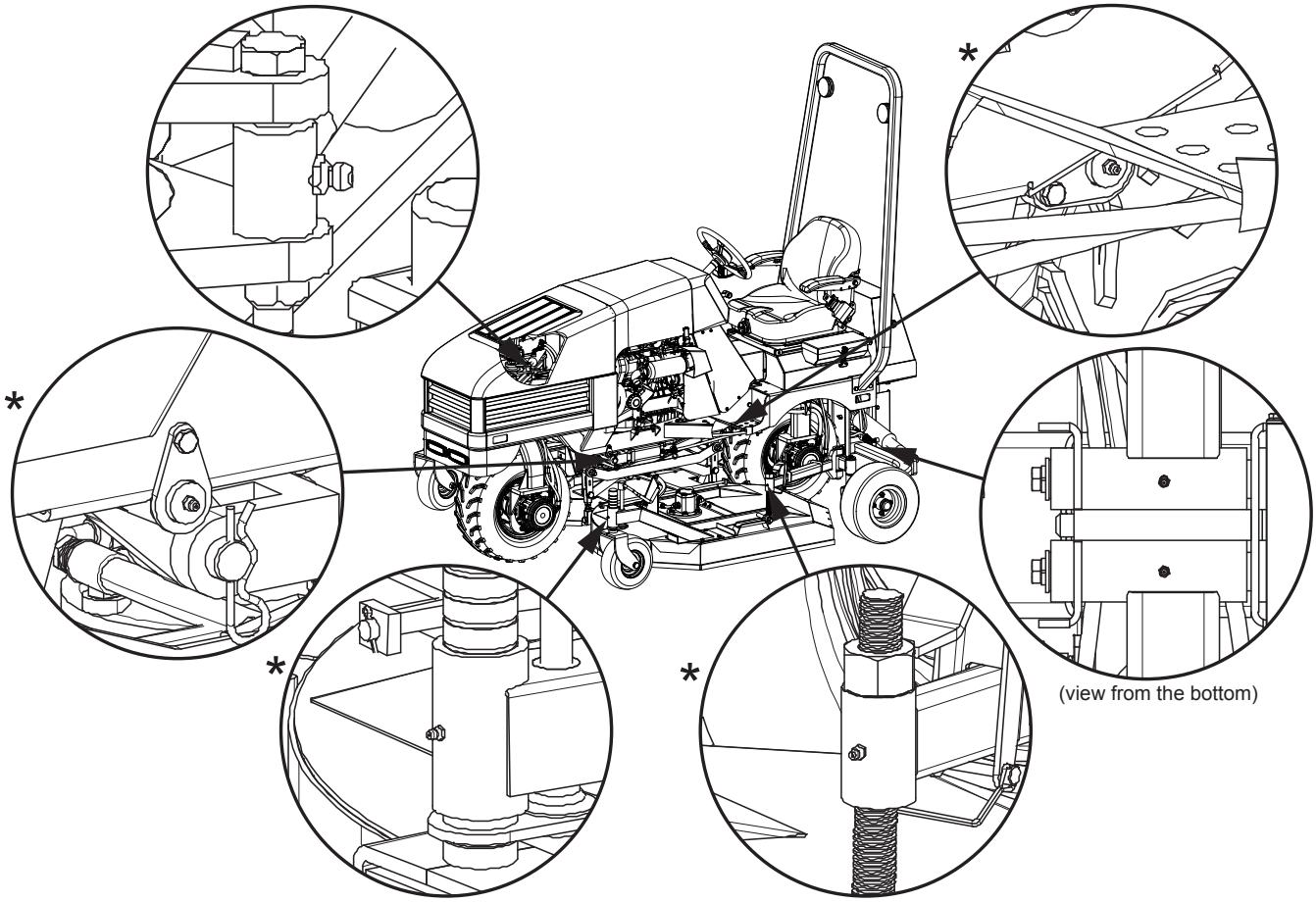



- On a daily basis, monitor the needle in the filter indicator when the oil is at normal operating temperature.




- The filter (part no. 822044) does not need replaced until the needle is in the red portion of the gauge.
- To replace filter , twist the filter counter-clockwise. Replace with new filter by turning it clockwise until tight.
- The hydraulic oil level should be monitored daily with the hydraulic tank's sight glasses on the left hand side of the hydraulic tank.
- Keep the hydraulic oil just above the lower sight glass at all times.
- Fill reservoir through the fill location on top of the reservoir.

## Grease Zerk Locations

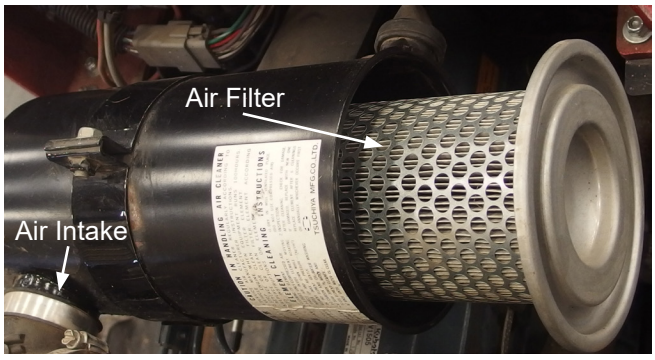



* Denotes a second grease zerk identical to this one on the other side.

### PROCEDURE

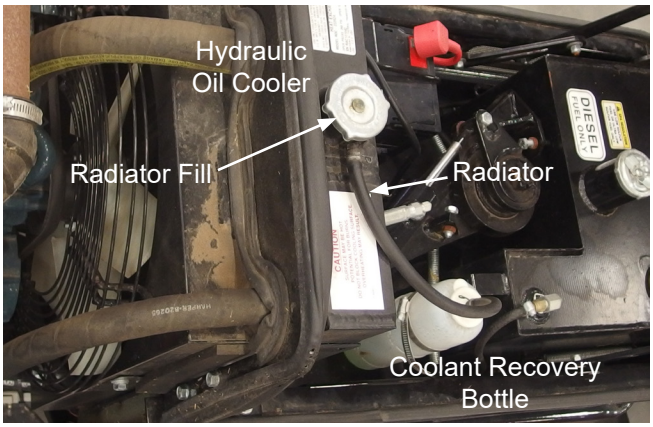
1) Park on level ground and set park brake.
2) Turn off ATM.
3) Give 2 to 3 shots of grease after every 10 hours of use.

### Air Cleaner




- Make sure intake is always free of debris.
- When engine is turned off, remove the wing bolt.
- Replace the air filter according to the Maintenance Schedule.

## Cooling System

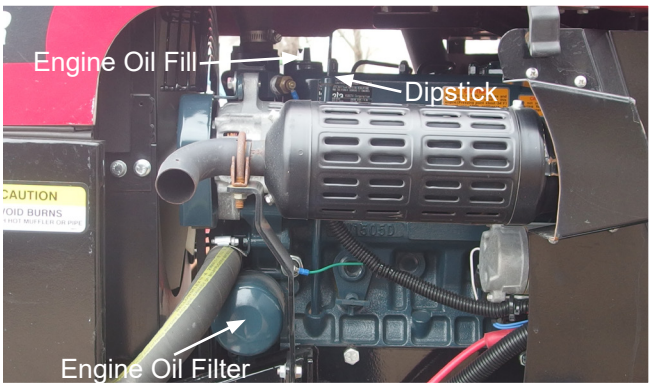



- The radiator and hydraulic oil cooler are located side by side in the same aluminum heat exchanger.
- Clear hydraulic oil cooler and radiator of debris with pressurized air daily or as needed.
- Check radiator level daily and only when engine is cool and not running.
- Remove cap (radiator fill) slowly to relieve any pressure that may be built up.
- Fill up radiator with coolant (50% water/ 50% antifreeze) until coolant is visible in neck of radiator.
- Make sure that the coolant recovery bottle has at least 1" of coolant in bottom. The presence of coolant in the recovery bottle does not mean radiator is full.
- Do **NOT** operate the machine if the engine temperature exceeds 220°F. Severe engine damage may occur if the machine is continuously operated above 215°F. If overheating does occur, diagnose the cooling system and ensuring proper coolant levels and proper air flow across the radiator.

**SAFETY WARNING**

**Hot Coolant and steam from the radiator can cause severe burns. Never open the radiator cap of a hot engine.**

## Engine Oil




- The dipstick and engine oil fill are located on top of the engine.
- The engine oil filter is located on the left side of the engine as viewed from the operator's seat.
- To get to the engine oil fill or dipstick, the hood should be raised.

**PROCEDURE**

- Check engine oil level only when engine is turned off.
- Keep engine oil level between the FULL and ADD marks on dipstick at all times. DO NOT OVER-FILL.
- Add engine oil (S.A.E. 10W30) through the engine oil fill location.
- Replace the engine oil/filter according to the Maintenance Schedule.

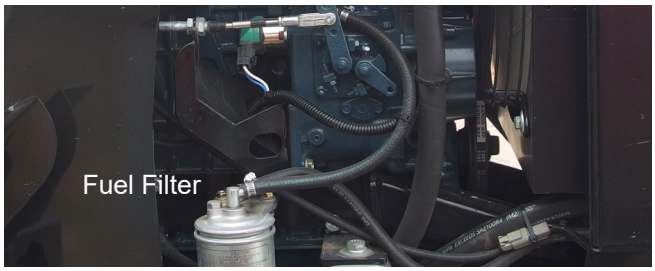
**SAFETY WARNING**

**Keep dipstick and oil fill cap secured tightly. Engine oil may escape through these orifices when engine is running causing severe burns.**

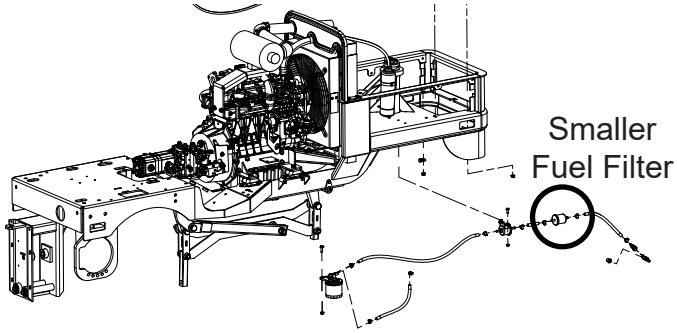
| | |
|---|---|
| above 25**°C (77°F)** | SAE30 or SAE10W-30<br>SAE15W-40 |
| -10**°C - 25°C**<br>**(14°F - 77°F)** | SAE10W-30<br>SAE15W-40 |
| below -10**°C (14°F)** | SAE10W-30 |

- Filled with SAE10W-30 from the factory, 6.0 L capacity, and change after the first 50 hours.

## Fuel Filter




- Fuel filter is located on the right side of the machine when viewed from the operator's seat.




- There is also a smaller in line fuel filter on the bottom of the front right corner of the machine leading from the fuel tank to the main fuel filter.
- The Fuel Shut-off valve is located on the lower right side of the fuel tank. It can be accessed from below the machine.

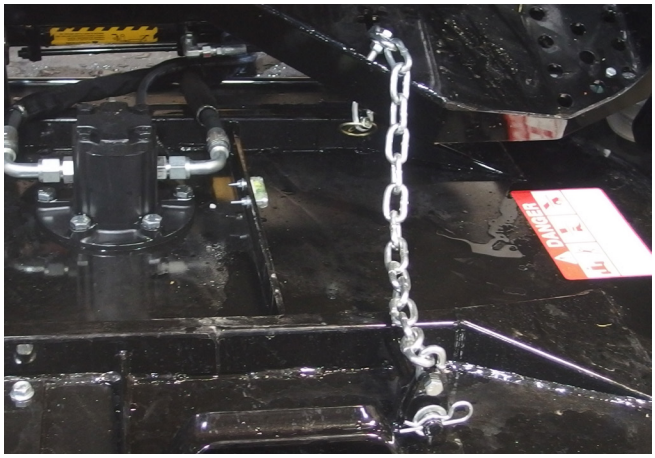
## Fuse/Relay Panel

- Located under the hood behind the dash of the mower.
- All fuses are 20 amp.

## Deck Service Mode

- Remove hairpin cotter and flat-washer and swing out support arm.

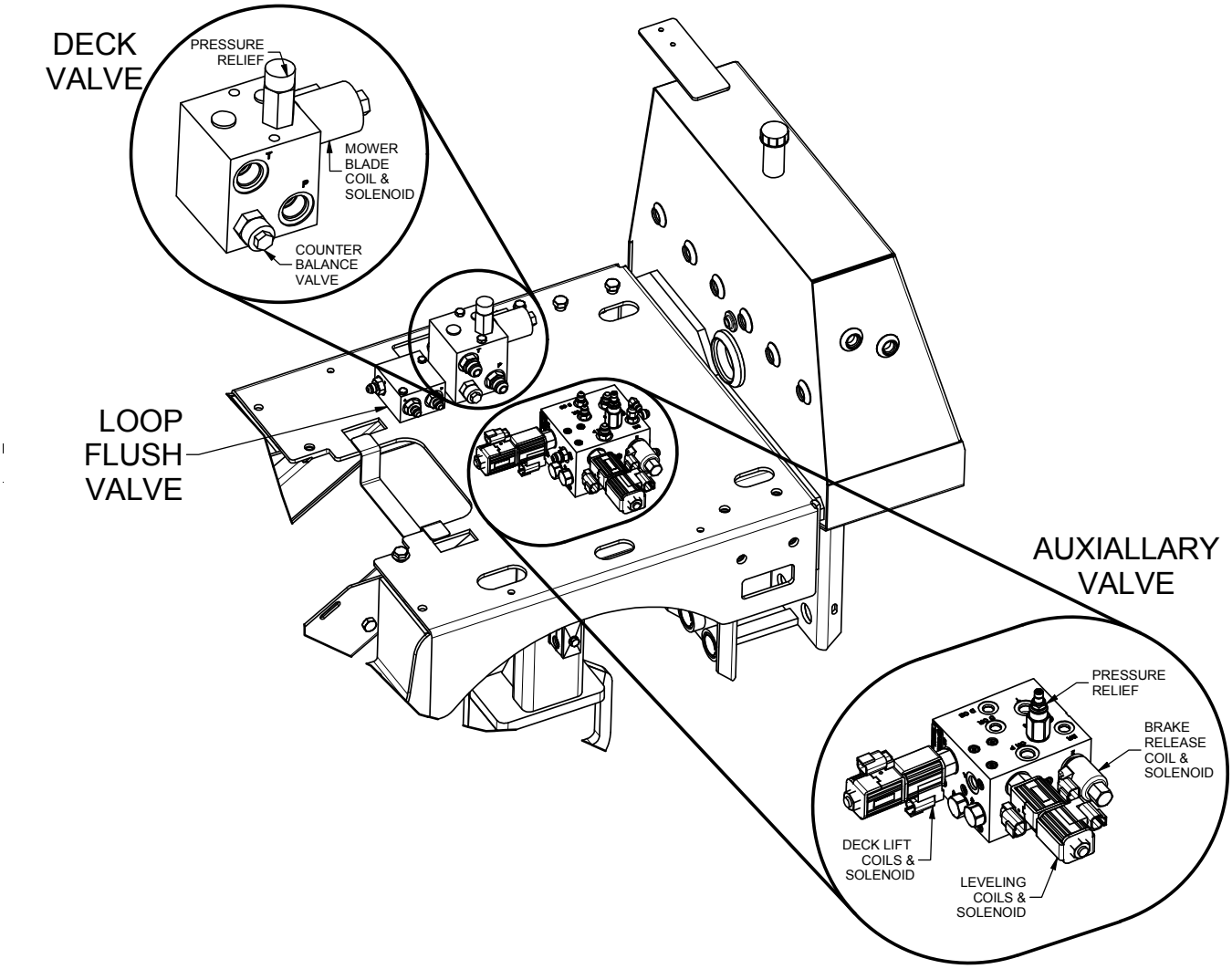
- Connect chain to deck and replace pin
- With Manual Override switch, lean mower all the way left or right. Then insert chain into chain cutout located on the step. Install the lynch pin in the bottom side of the step for added safety. After that lean the mower to the opposite side.



- Block deck up before working under the deck.

## Hydraulic Valves

- To get to the hydraulic valves, either remove the two rear pins holding the seat down and rotate the seat forward or remove all (4) pins holding the seat down and remove the seat all together.



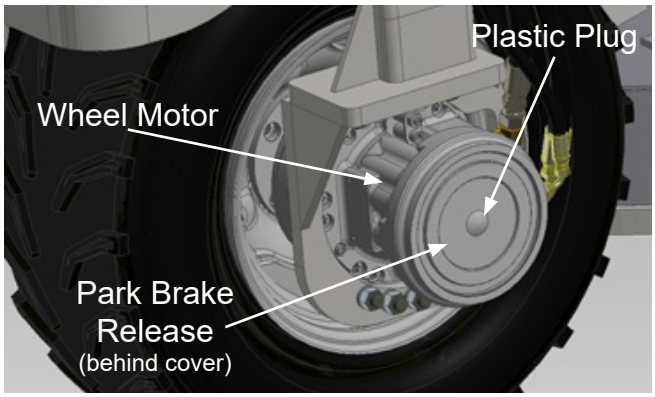
# Tow Procedure

**Moving the machine without starting the engine**

- In order to move the machine without the engine running, the park brakes must be released and the bypass valve must be opened on the propulsion pump.

**Park Brake Release**

- Both of the wheel motors contain a park brake that is mechanically applied and hydraulically released. Whenever the engine is off (zero system pressure), the brakes are applied.
- Always release the park brakes when towing or pushing the unit.

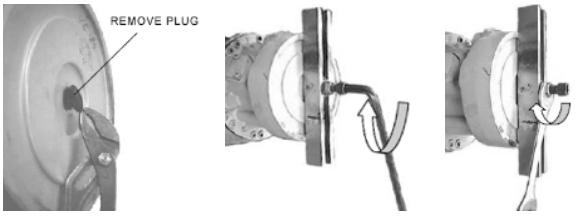



**PRECAUTION**

- Towing or pushing the unit with the park brakes applied may cause serious damage to internal brake parts.

**PROCEDURE**

1. Remove plastic plug from the center of the park brake housing.
2. Install brake release tool (P/N 575064) by placing on brake housing and tightening the screw into the piston. These tools can be found inside the toolbox.
3. Tighten the nut until the motor shaft turns freely.




- After towing the unit, follow procedure in opposite order to remove brake release tool and install new plastic plug.

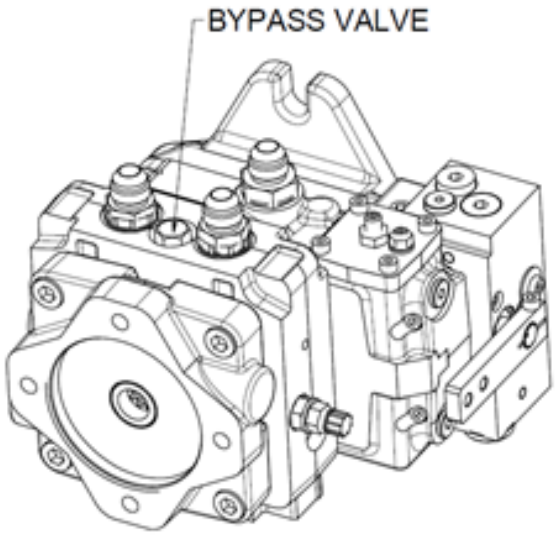
**Opening the Bypass Valve**

- The bypass valve is located on the top side of the propulsion pump between the high-pressure ports. The valve can be accessed by removing the center cowling panel.

- Open the bypass valve when moving the machine for short distances. The bypass valve connects the high-pressure ports A & B. Only use this valve in an emergency case and for a short distance.
- The bypass valve is not a tow valve and can not be used to pull the machine for a long distance.

**PRECAUTIONS**

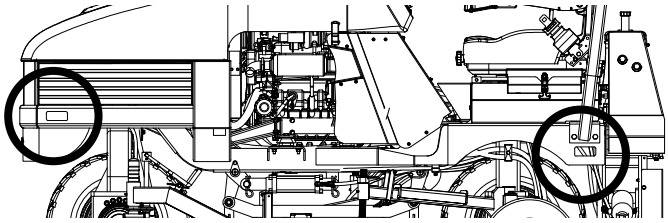
- The bypass valve is intended only for moving a vehicle a very short distance and is not intended for towing a vehicle behind a truck or tractor. Note: Serious damage to the hydrostatic drive will result if the vehicle is towed.
- Close the bypass valve tightly when finished moving unit. Failure to close valve tightly will result in full or partial loss of power.



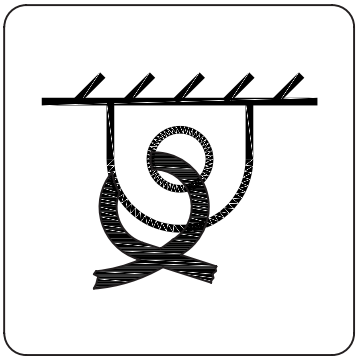

**PROCEDURE**

- To open the bypass valve, turn it counter-clockwise. It can be completely removed from the pump housing. However, to avoid oil leakage, only turn the valve 2 turns.
- After the machine has been moved, reinstall the bypass valve and reinstall the center cowling panel.

**Tie Down Locations**

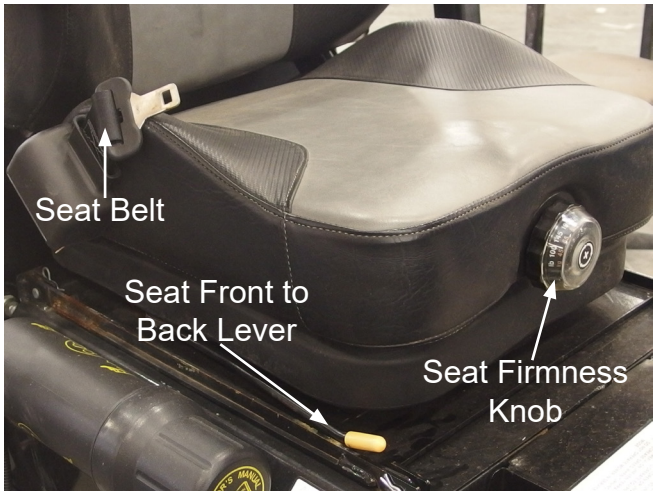


There are (4) tie down locations designated on the machine that are located at the front and rear of each side of the machine, and they are accompanied by the following decal:



# Adjustments

**Seat Adjustment**




- The lever with the yellow handle controls the chair's forward and back movement to allow for either more or less leg room.
- The round knob adjusts the ride quality. Turn the knob clock-wise for a firmer ride, and counter-clockwise for a softer ride.

- Adjust the screw to change the angle of the arm rests.

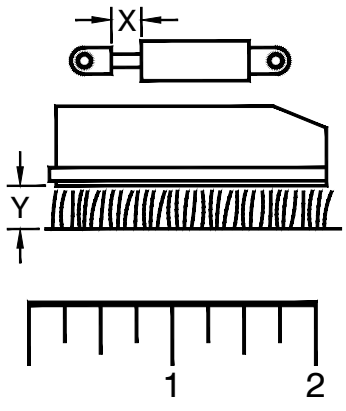
- The seat belt is retractable and will lock up on impact or accident.

**Cutting Height**

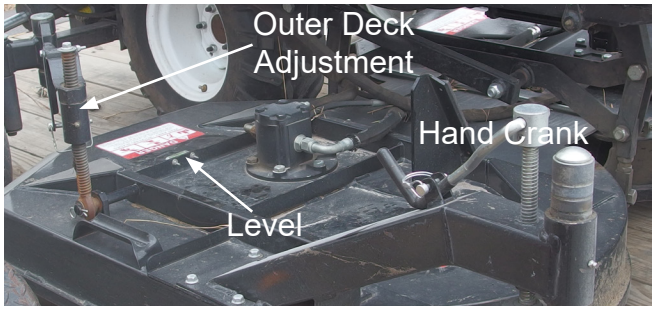
- Park the machine on level ground.
- Start the machine and raise the deck using the switch on the dash.

- Using the decal on the side of the frame or the picture below, identify the cylinder spacer(s) needed to achieve the desired cut height. The cylinder spacers are located in the tool box on the LH side of the seat frame. The spacers provided include:
  2 - 0.25”
  1 - 0.50”
  1 - 1.00”

| X CYLINDER SPACER | Y CUT HEIGHT |
|---|---|
| ⌀ | 3.00" |
| 0.25" | 3.25" |
| 0.50" | 3.50" |
| 0.75" | 4.00" |
| 1.00" | 4.50" |
| 1.25" | 4.75" |
| 1.50" | 5.00" |
| 1.75" | 5.50" |
| 2.00" | 6.00" |




- Install the cylinder spacer(s) onto the deck lift cylinder (see pg. 5 for location).
- Lower the deck all the way down using the switch on the dash.
- The outer deck height is controlled by the arm linkage attached to the stabilizer arm.
- Using the crank located on the caster wheels, raise the caster wheels so that the deck is not supported by the caster wheel. Turn CCW until the wheel is not touching the ground. Repeat this step for both sides.
- Using the outer deck screw adjustment, adjust the deck so that it is level with the center of the deck. A bubble level is mounted on the deck for ease of adjustment. Repeat for both sides.




- Lastly, adjust both caster wheels down until they touch the ground.

# Standard Torque Chart

**SAFETY WARNING!**

**Refer to the Standard Torque Chart whenever bolts, nuts or screws are tightened.**

**PRECAUTIONS**

- When tightening two or more fasteners on the same part, DO NOT tighten the fasteners completely one at a time. To avoid distortion, first tighten all fasteners in sequence to one-third of torque value, then tighten to two-thirds of torque value, then tighten to full value.
- All lug nuts should be torqued to 140 ft-lbs (190 N-m).

**U.S. BOLT TORQUE SPECIFICATIONS**

***Torque in foot-pounds***

| Diameter | Thread per inch | SAE 2 | SAE 5 | SAE 8 | SHCS |
|---|---|---|---|---|---|
| **1/4** | 20 | 4 | 8 | 12 | 14 |
| **1/4** | 28 | 6 | 10 | 14 | 16 |
| **5/16** | 18 | 9 | 17 | 25 | 29 |
| **5/16** | 24 | 12 | 19 | 29 | 33 |
| **3/8** | 16 | 16 | 30 | 45 | 49 |
| **3/8** | 24 | 22 | 35 | 50 | 54 |
| **7/16** | 14 | 24 | 50 | 70 | 76 |
| **7/16** | 20 | 34 | 55 | 80 | 85 |
| **1/2** | 13 | 38 | 75 | 110 | 113 |
| **1/2** | 20 | 52 | 90 | 120 | 126 |
| **9/16** | 12 | 52 | 110 | 150 | 163 |
| **9/16** | 18 | 71 | 120 | 170 | 181 |
| **5/8** | 11 | 98 | 150 | 220 | 230 |
| **5/8** | 18 | 115 | 180 | 240 | 255 |
| **3/4** | 10 | 157 | 260 | 380 | 400 |
| **3/4** | 16 | 180 | 300 | 420 | 440 |
| **7/8** | 9 | 210 | 430 | 600 | 640 |
| **7/8** | 14 | 230 | 470 | 660 | 700 |
| **1** | 8 | 320 | 640 | 900 | 980 |
| **1** | 12 | 350 | 710 | 990 | 1060 |

**Baseline torque is calculated for a non-lubricated, un-plated bolt.**

**BOLT TORQUE FACTORS**

| LUBRICANT OR PLATING | TORQUE CHANGES |
|---|---|
| Oil | Reduce torque 15% to 25% |
| Chrome plating | No change |
| Cadmium plating | Reduce torque 25% |
| Zinc plating | Reduce torque 15% |

# Service Parts

**Filters**

Engine Air Filter..... 802064
Engine Oil Filter..... 302058
Fuel Filter (Cannister)..... 302057
Fuel Filter (Inline)..... 302103
Hydraulic Oil Filter..... 822044

**Belts**

Engine Fan Belt..... 802063

**Blades**

RH Swinging Blade Set..... 500269
LH Swinging Blade Set..... 500268
Swinging Blades Bolt Kit
(1 Deck Only) ..... 500319
RH Fixed Blade Set..... 500271
LH Fixed Blade Set..... 500270
Fixed Blades Bolt Kit
(1 Deck Only)..... 500320

**Wheels and Tires**

Stabilizer Wheel Assembly..... 800057
Caster Wheel Assembly..... 800093
Drive Wheel..... 842019
Drive Tire..... 842020
Drive Wheel and Tire Assy..... 843007

# Service Schedule

**Daily or Before Starting the Engine**

- □ Check Engine Oil Level..... SAE 10W30 or 15W40
  - (See Maintenance section for details)
- □ Check Hydraulic Oil Level..... Crown AW46
  - (See Maintenance section for details)
- □ Check Fuel Level..... Clean #2 Diesel Fuel
- □ Visually Inspect..... Fan belt, bolts, fittings, hoses, or any damaged parts
- □ Check Radiator & Oil Cooler..... Clean off debris as needed
- □ Check Engine Screens……..…..... Clear debris as needed to ensure proper air flow
- □ Check Air Cleaner Intake..... Clear debris as needed
- □ Check Engine Coolant Level..... 50% anti-freeze, 50% water
- □ Grease..... Refer to page 10
- □ Check Drive Tires..... Visually inspect tires to ensure proper inflation & no damage

**Every 50 Hours**

- □ Change Engine Oil & Filter..... After initial 50 hours, change engine oil
  - (every 200, thereafter)
- □ Change Inline Fuel Filter..... After initial 50 hours, change filter
  - (P/N: 302103, every 200 thereafter)
- □ Check Tire Pressure..... Inflate drive tires to 15 psi
- □ Check of Fuel Pipes & Clamps..... See Kubota Manual for details
- □ Check Lug nuts..... Torque to 140 ft-lbs

**Every 100 Hours**

- □ Check Engine Air Filter..... Clean or replace as needed (P/N: 802064)
- □ Check Fan Belt Tightness..... Tighten as needed
- □ Check Hydraulic Oil Filter..... Replace when needed (P/N: 822044)

**Every 200 Hours**

- □ Change Engine Oil..... SAE 10W30 or 15W40
  - (See engine manual)
- □ Change Engine Oil Filter..... P/N: 302058
- □ Check Intake Air Lines..... Clear debris as needed
- □ Replace In-line Fuel Filter……..... P/N: 302103
- □ Check Radiator Hoses & Clamps..... Repair or replace as necessary

**Every Year**

- □ Replace Engine Air Filter..... P/N: 802064
- □ Check Hydraulic Oil Condition..... Crown AW46
  - (See Maintenance section for details)
- □ Check Battery..... Clean terminals if necessary

**Every 500 Hours**

- □ Replace Engine Fan Belt..... P/N: 802063
- □ Replace Cannister Fuel Filter..... P/N: 302057

**Every 1500 Hours**

- □ Check fuel injection nozzle injection pressure ...See Kubota Manual
- □ Change Hydraulic Oil..... Crown AW46
    - (See Maintenance section for details)

**Every 3000 Hours**

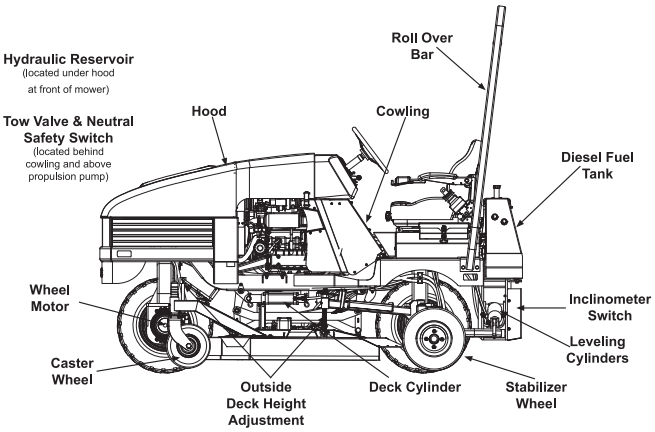
- □ Check Fuel Injection Pump

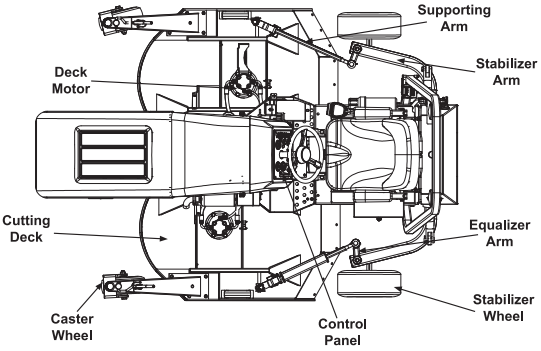
**Every Two Years**

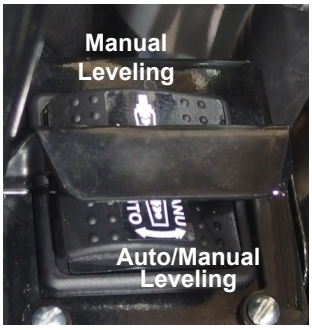
- □ Change Engine Coolant..... 50% anti-freeze, 50% water
- □ Replace Battery..... P/N: 832011
- □ Replace radiator hoses and clamp bands..... See parts manual
- □ Replace fuel hoses and clamp bands..... See parts manual
- □ Replace air intake hose..... See parts manual

## BEFORE OPERATION

- Safety Checklist
  - o Read and understand the Operator's Manual (located in the manual holder to the left of the seat).
  - o Clear all foreign objects such as rocks, bottles or other hard materials that lay in the area to be mowed.
  - o Follow all procedures described in the Maintenance section.
  - o Fill with #2 diesel fuel, if needed, while engine is cool.
  - o Visually check tires.
  - o Visually inspect machine for loose fittings, fasteners, hoses, etc.
  - o Know the location and function of all controls and how to stop quickly in an emergency.
  - o Adjust seat to a comfortable position.
  - o Fasten safety belts.





- Perform the daily maintenance checklist (For details, see the maintenance section of the Operator's Manual).
  - o Check engine oil level
  - o Check hydraulic oil level
  - o Check fuel level
  - o Visually inspect the fan belt, bolts, fittings, hoses, or any damaged parts
  - o Check radiator and oil cooler
  - o Check engine screens
  - o Check Air cleaner intake
  - o Check engine coolant level
  - o Grease all zerks (see page 10)
  - o Check drive tires

**STARTING**

- To start the machine, it must be in neutral and the mower blades must be turned off.
- Turn the key over until the mower starts, and release the key.
- Set the cutting height following the direction laid out on page 15.

**DURING OPERATION**

- FASTEN SEAT BELT
- To prevent possible eye injury, always wear SAFETY GLASSES while operating machine.
- Park Brake – Make sure the park brake is disengaged before operation. Set the park brake when unit is not in use or is parked on an incline. The indicator light illuminates when the park brake is set.
- The park break is applied when the operator is out of the seat.
- Throttle – Start at low throttle. After allowing engine to warm up, operate machine at full throttle.
- To turn the mower blades on, the operator must be in the seat, and the hydraulic oil temp must be below 190° F.
- Mower Switch - Used to engage the mower blades.
- Manual Override Switch - It is used when the operator would like to lean the mower either way on their own using the Manual Leveling Switch on the right arm rest, otherwise it should be left alone to allow the machine to auto-level itself up to 34° either way.
- Deck Wing Raise/Lower - This switch can raise and lower he deck wings in order to avoid obstacles that may be in the machines path. Be sure to disengage the Mower Switch before raising deck wings.
- Lights Switch - Use the lights as needed to avoid obstacles that could damage the machine or harm the operator in any way.

## NOTES

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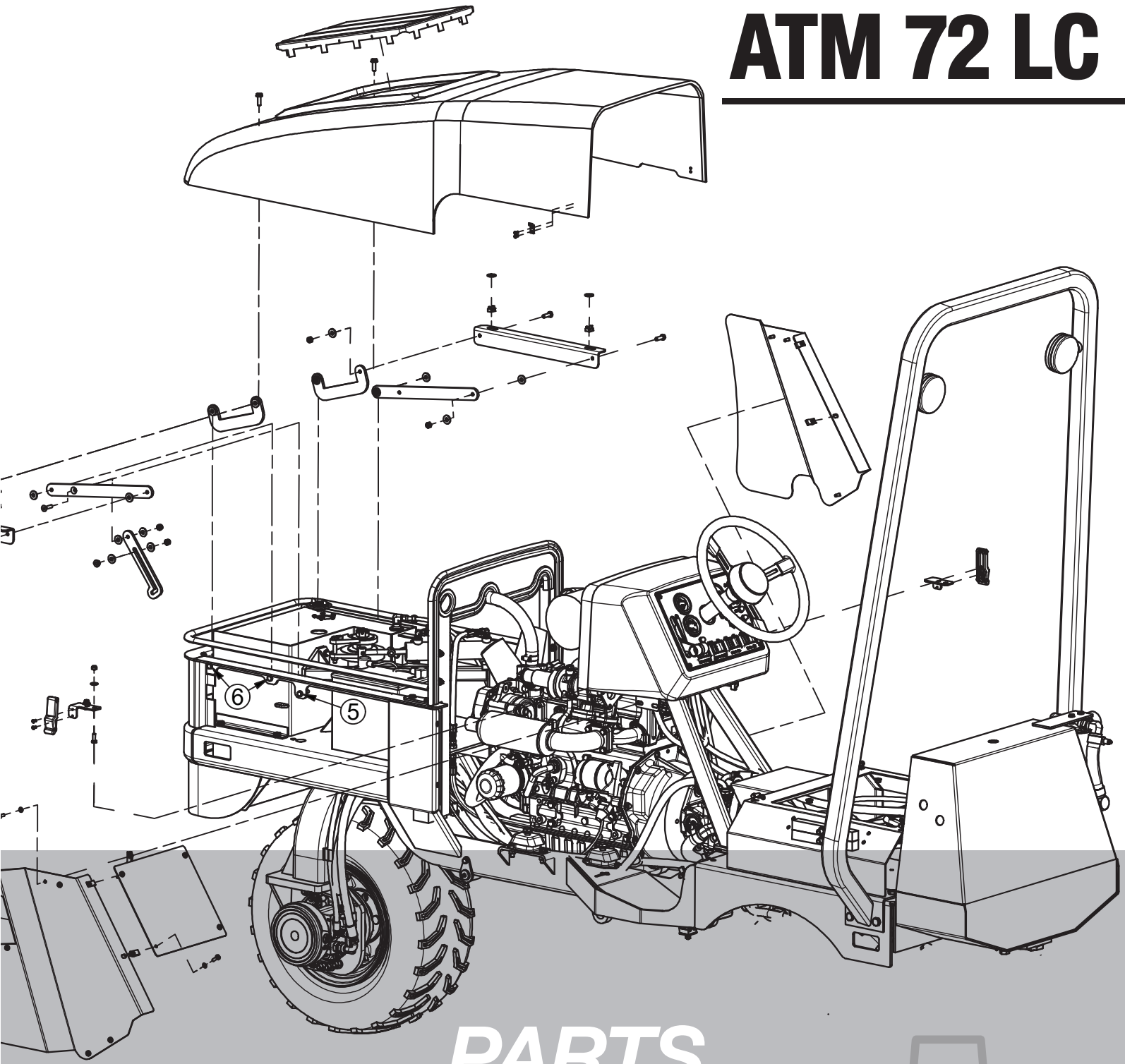
# ATM 72 LC




# PARTS MANUAL

All Terrain Mower®
72 LC

10-2022

HARPER INDUSTRIES INC

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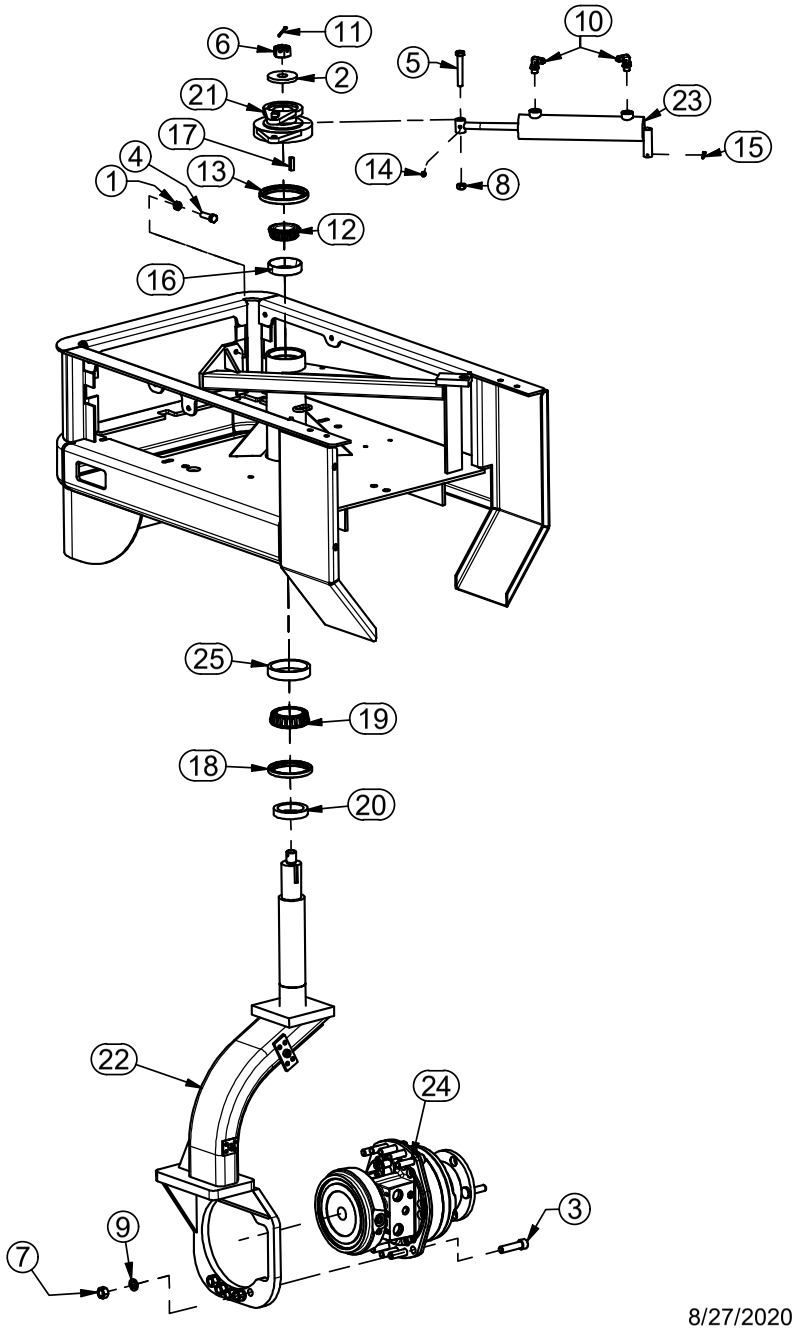
# Frame & Assemblies

# FRONT STEERING ASSEMBLY

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110107 | NUT, 3/8-16 HEX JAM GR 2 |
| 2 | 110114 | WASHER, 2.25 x .75 x .25T |
| 3 | 110166 | BOLT, 1/2-13 X 2.0 SHCS |
| 4 | 110425 | BOLT, 3/8-16 X 1.25 |
| 5 | 110436 | BOLT, 3/8-16 X 2.5 |
| 6 | 110607 | NUT, 3/4-10, SLOTTED |
| 7 | 110610 | NUT, 1/2-13 |
| 8 | 110621 | NUT, 3/8-16, UNITORQUE LOCK |
| 9 | 110666 | WASHER, 1/2" LOCK |
| 10 | 120235 | ADAPTER, 4MJ-4MB90 |
| 11 | 410261 | COTTER PIN, 1/8 X 1.75 |
| 12 | 510106 | BEARING |
| 13 | 510108 | SEAL |
| 14 | 510174 | GREASE ZERK, 1/4-28 ST |
| 15 | 510176 | COTTER PIN, 1/8 X 1 |
| 16 | 510209 | RACE |
| 17 | 510228 | KEY, 1/4 X 1/4 X 1.0 in |
| 18 | 810297 | BOTTOM SEAL |
| 19 | 810299 | BEARING LOWER |
| 20 | 810300 | SPACER, STEERING TOWER |
| 21 | 810533 | STEERING ARM ASSY |
| 22 | 815081 | SPINDLE WELDMENT, FRONT WHEEL |
| 23 | 823015 | STEERING CYLINDER |
| 24 | 823026 | MOTOR, WHEEL 30.5 CI |
| 25 | 842016 | BEARING CUP, 3.250 X .65 |




ASSEMBLY STATION #1: 875001

8/27/2020

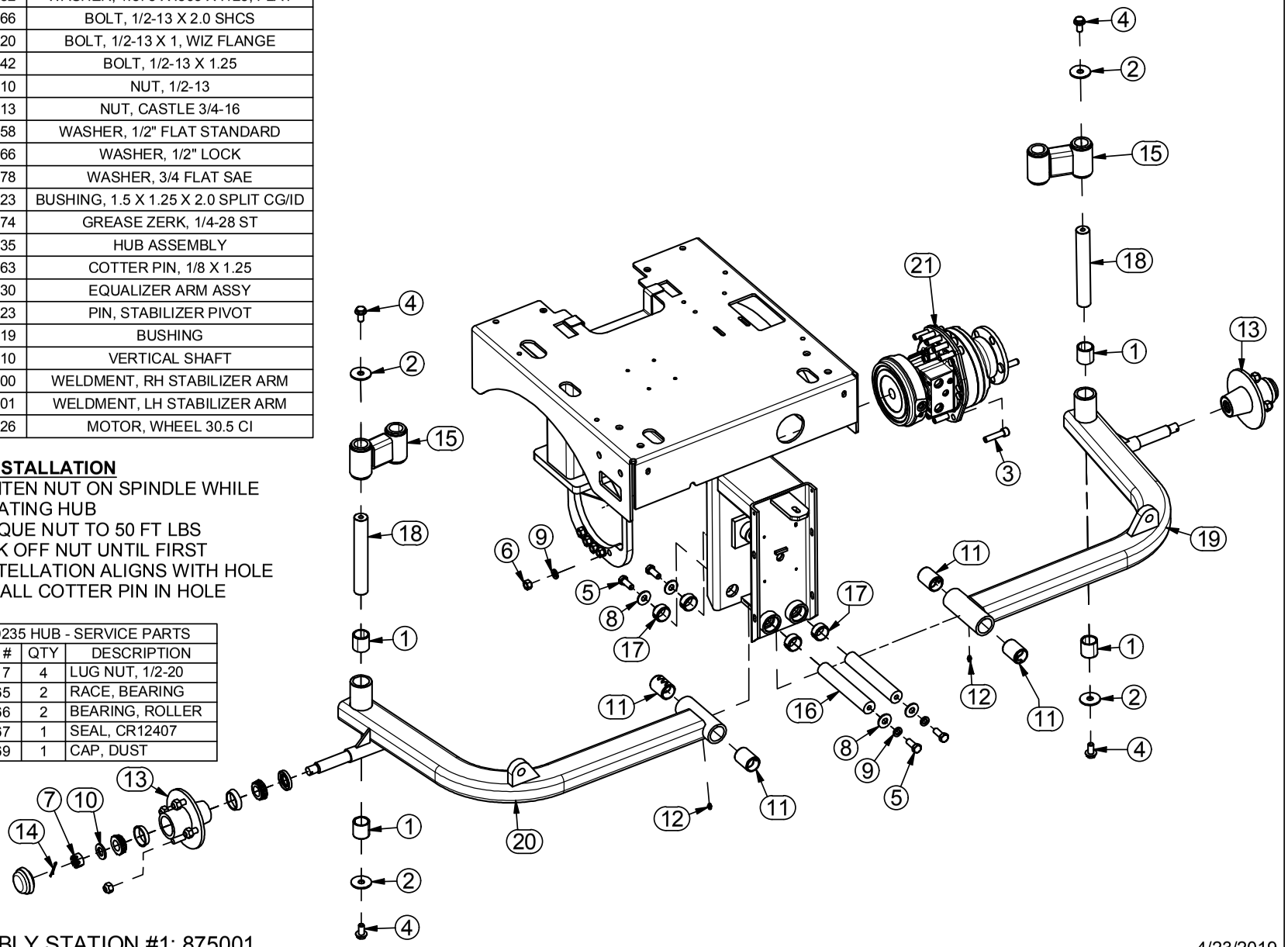
# REAR STABILIZER ARM ASSEMBLY

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 102019 | BUSHING, 1-1/2 X 1-1/4 X 1-1/2 |
| 2 | 110052 | WASHER, 1.875 X .563 X .125, FLAT |
| 3 | 110166 | BOLT, 1/2-13 X 2.0 SHCS |
| 4 | 110220 | BOLT, 1/2-13 X 1, WIZ FLANGE |
| 5 | 110442 | BOLT, 1/2-13 X 1.25 |
| 6 | 110610 | NUT, 1/2-13 |
| 7 | 110613 | NUT, CASTLE 3/4-16 |
| 8 | 110658 | WASHER, 1/2" FLAT STANDARD |
| 9 | 110666 | WASHER, 1/2" LOCK |
| 10 | 110678 | WASHER, 3/4 FLAT SAE |
| 11 | 202023 | BUSHING, 1.5 X 1.25 X 2.0 SPLIT CG/ID |
| 12 | 510174 | GREASE ZERK, 1/4-28 ST |
| 13 | 510235 | HUB ASSEMBLY |
| 14 | 510463 | COTTER PIN, 1/8 X 1.25 |
| 15 | 810130 | EQUALIZER ARM ASSY |
| 16 | 810223 | PIN, STABILIZER PIVOT |
| 17 | 810319 | BUSHING |
| 18 | 810610 | VERTICAL SHAFT |
| 19 | 815100 | WELDMENT, RH STABILIZER ARM |
| 20 | 815101 | WELDMENT, LH STABILIZER ARM |
| 21 | 823026 | MOTOR, WHEEL 30.5 CI |

**HUB INSTALLATION**

1. TIGHTEN NUT ON SPINDLE WHILE ROTATING HUB
2. TORQUE NUT TO 50 FT LBS
3. BACK OFF NUT UNTIL FIRST CASTELLATION ALIGNS WITH HOLE
4. INSTALL COTTER PIN IN HOLE

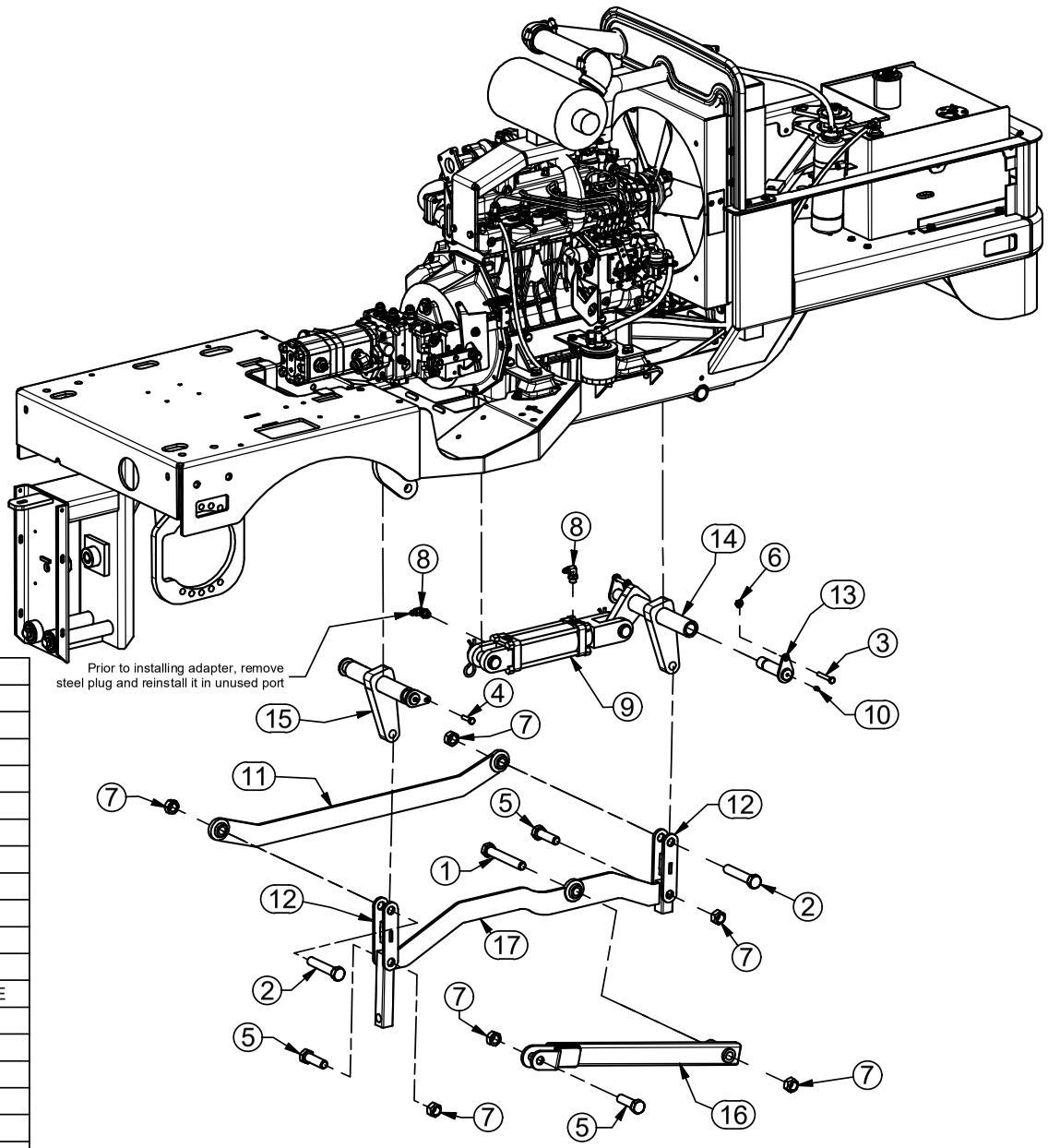
| 510235 HUB - SERVICE PARTS | | |
|---|---|---|
| PART # | QTY | DESCRIPTION |
| 110617 | 4 | LUG NUT, 1/2-20 |
| 510465 | 2 | RACE, BEARING |
| 510466 | 2 | BEARING, ROLLER |
| 510467 | 1 | SEAL, CR12407 |
| 510469 | 1 | CAP, DUST |




ASSEMBLY STATION #1: 875001

4/23/2019

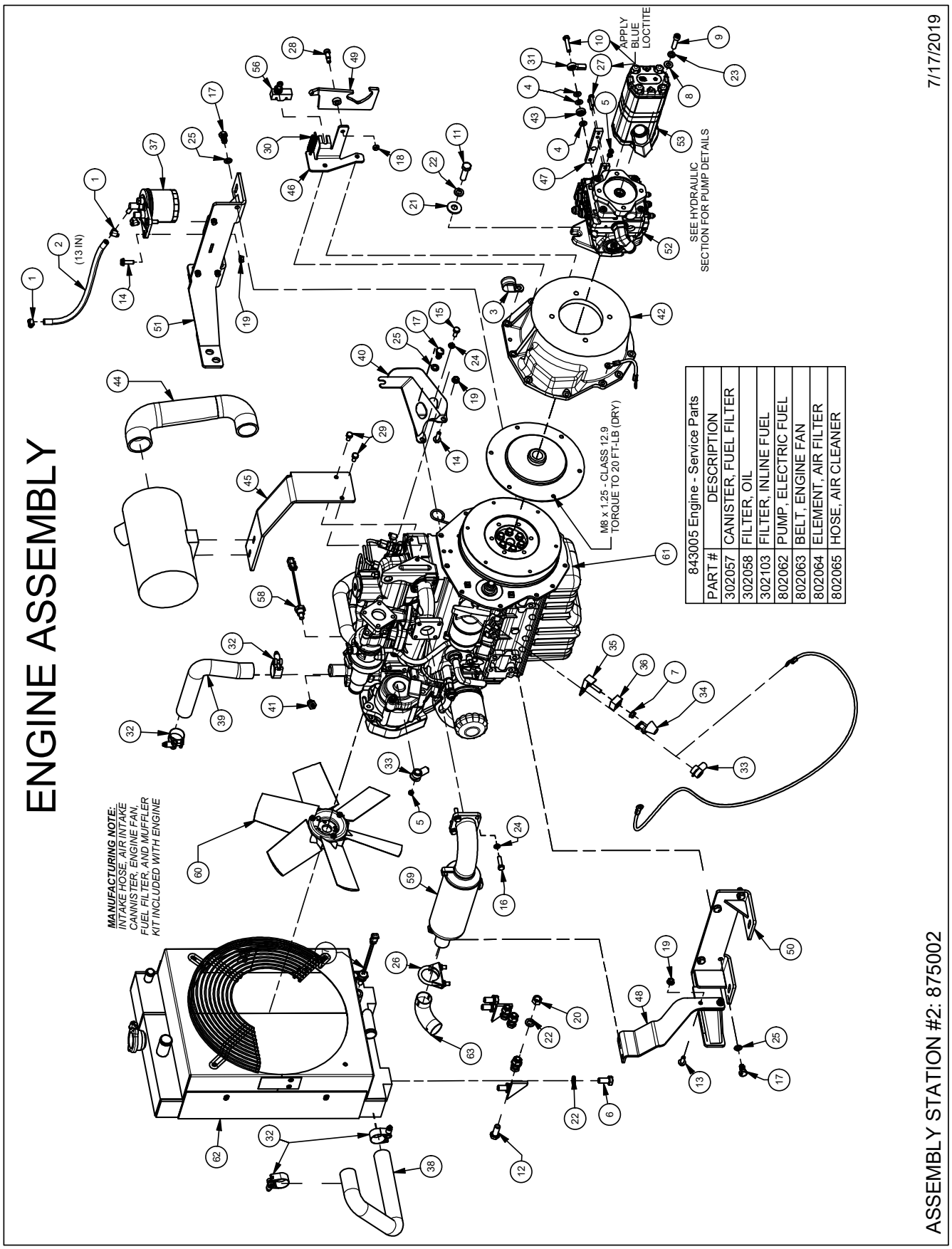
# DECK LINKAGE INSTALLATION




| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110070 | BOLT, 3/4-10 X 5.0 |
| 2 | 110330 | BOLT, 3/4-10 X 4.0 GR 5 HEX HEAD |
| 3 | 110378 | BOLT, 5/16-18 X 2.0 |
| 4 | 110421 | BOLT, 5/16-18 X 1-1/4 |
| 5 | 110454 | BOLT, 3/4-10 X 2.5 |
| 6 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 7 | 110625 | NUT, 3/4-10, UNITORQUE LOCK |
| 8 | 120220 | ADAPTER, 4MJ-6MB90 |
| 9 | 323018 | CYLINDER - 2 x 4, SAE-6, TIE ROD |
| 10 | 510174 | GREASE ZERK, 1/4-28 ST |
| 11 | 815074 | WELDMENT, UPPER DECK LIFT LINKAGE |
| 12 | 815075 | WELDMENT, DECK CONNECTING LINK |
| 13 | 815076 | WELDMENT, DECK PIN |
| 14 | 815077 | WELDMENT, FRONT DECK PIVOT BAR |
| 15 | 815078 | WELDMENT, REAR DECK PIVOT BAR |
| 16 | 815089 | WELDMENT, DECK LIFT PIVOT |
| 17 | 815090 | WELDMENT, LOWER DECK LIFT LINKAGE |

ASSEMBLY STATION #2: 875002

9/7/2021




| 843005 Engine - Service Parts | |
|---|---|
| PART # | DESCRIPTION |
| 302057 | CANISTER, FUEL FILTER |
| 302058 | FILTER, OIL |
| 302103 | FILTER, INLINE FUEL |
| 802062 | PUMP, ELECTRIC FUEL |
| 802063 | BELT, ENGINE FAN |
| 802064 | ELEMENT, AIR FILTER |
| 802065 | HOSE, AIR CLEANER |

# ENGINE ASSEMBLY

| Parts List | | | Parts List | | |
|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 100361 | CLAMP, HOSE #4 .25 MINI | 33 | 132014 | INSULATOR CAP, (ALTERNATOR) |
| 2 | 100756 | Hose, 5/16 High Pressure Fuel | 34 | 132092 | FUSE COVER, BUSS CFCOVER-1R |
| 3 | 102074 | Clamp, Adel .75w x 1.25id x .406 Hole | 35 | 132093 | FUSE HOLDER, BUSS CFBAR1-M8XSP |
| 4 | 110069 | WASHER, 5/16" FLAT SAE | 36 | 132150 | FUSE, 50 AMP |
| 5 | 110074 | Hex Nut M6 X 1.0 Thd | 37 | 302057 | CANISTER, FUEL FILTER |
| 6 | 110086 | BOLT, 1/2-13 X 1.0 | 38 | 302151 | Formed Hose, Radiator Bottom |
| 7 | 110141 | NUT, M8 X 1.25 WIZFLANGE | 39 | 302152 | Formed Hose, Radiator Top |
| 8 | 110155 | WASHER, 3/8" FLAT SAE | 40 | 315186 | Weldment, Kubota Throttle Mnt |
| 9 | 110178 | BOLT, 3/8-16 X 1.5 SHCS | 41 | 332004 | Sender, Water, 3/8 Npt |
| 10 | 110377 | BOLT, 5/16-18 X 1-1/2 | 42 | 342011 | ADAPTER - PUMP, KUBOTA 1505, KIT |
| 11 | 110419 | BOLT, 1/2-13 X 1.75 | 43 | 540079 | BEARING, BALL, 1620RS |
| 12 | 110442 | BOLT, 1/2-13 X 1.25 | 44 | 802065 | HOSE, AIR CLEANER |
| 13 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE | 45 | 810826 | MOUNT, AIR CLEANER |
| 14 | 110459 | BOLT, 5/16-18 X 1, WIZ FLANGE | 46 | 810885 | BRKT, NEUTRAL CENTERING |
| 15 | 110469 | BOLT, M8x1.25 x 20 Gr 10.9 | 47 | 810888 | BRKT, PUMP LEVER |
| 16 | 110486 | BOLT, M8x1.25 x 30 Gr 10.9 | 48 | 810900 | SUPPORT, EXHAUST |
| 17 | 110560 | BOLT, M10-1.25 X 20 HHCS 8.8 PLAIN | 49 | 815096 | WELDMENT, NEUTRAL CENTERING |
| 18 | 110600 | NUT, 5/16-18, UNITORQUE LOCK | 50 | 815097 | WELDMENT, LH ENG/RAD MOUNT |
| 19 | 110606 | NUT, 5/16-18 WIZ FLANGE | 51 | 815098 | WELDMENT, RH ENG/RAD MOUNT |
| 20 | 110610 | NUT, 1/2-13 | 52 | 823024 | PUMP, PM10 PROP 1.24 CI/.43 CI |
| 21 | 110658 | WASHER, 1/2" FLAT STANDARD | 53 | 823025 | PUMP, DOUBLE GEAR 1.16 CI / .49 CI |
| 22 | 110666 | WASHER, 1/2" LOCK | 54 | 830063 | CABLE, POSITIVE BATTERY |
| 23 | 110672 | WASHER, 3/8" LOCK | 55 | 832001 | CABLE, GROUND |
| 24 | 110674 | WASHER, 5/16" LOCK | 56 | 832002 | SWITCH ROLLER PLUNGER |
| 25 | 110689 | WASHER, 10mm LOCK | 57 | 832076 | Switch, 190 F Temp, 8MB, N.C. Rising |
| 26 | 110779 | CLAMP, 1 1/2" EXHAUST | 58 | 832079 | SWITCH, 215 F TEMP, 6MP, N.O. RISING |
| 27 | 110931 | BOLT, M6x1 x 25 Gr 8.8 | 59 | 842017 | MUFFLER KIT, KUBOTA C31 |
| 28 | 111070 | BOLT, 3/8 X .625 SHOULDER SHCS | 60 | 842018 | FAN, ENGINE COOLING |
| 29 | 111089 | BOLT, M8x1.25 x 16 Gr 8.8 | 61 | 843005 | ENGINE, KUBOTA V1505 TIER 4F (25hp) |
| 30 | 111149 | SPRING, TENSION .625 x .069 x 3.0 | 62 | 843006 | COOLING PACKAGE, RADIATOR & OIL |
| 31 | 111150 | ROD END, 5/16-24 RH, FEMALE | 63 | 942204 | EXHAUST ELBOW 1 3/8 |
| 32 | 112101 | CLAMP, 1.50", T-BOLT | | | |

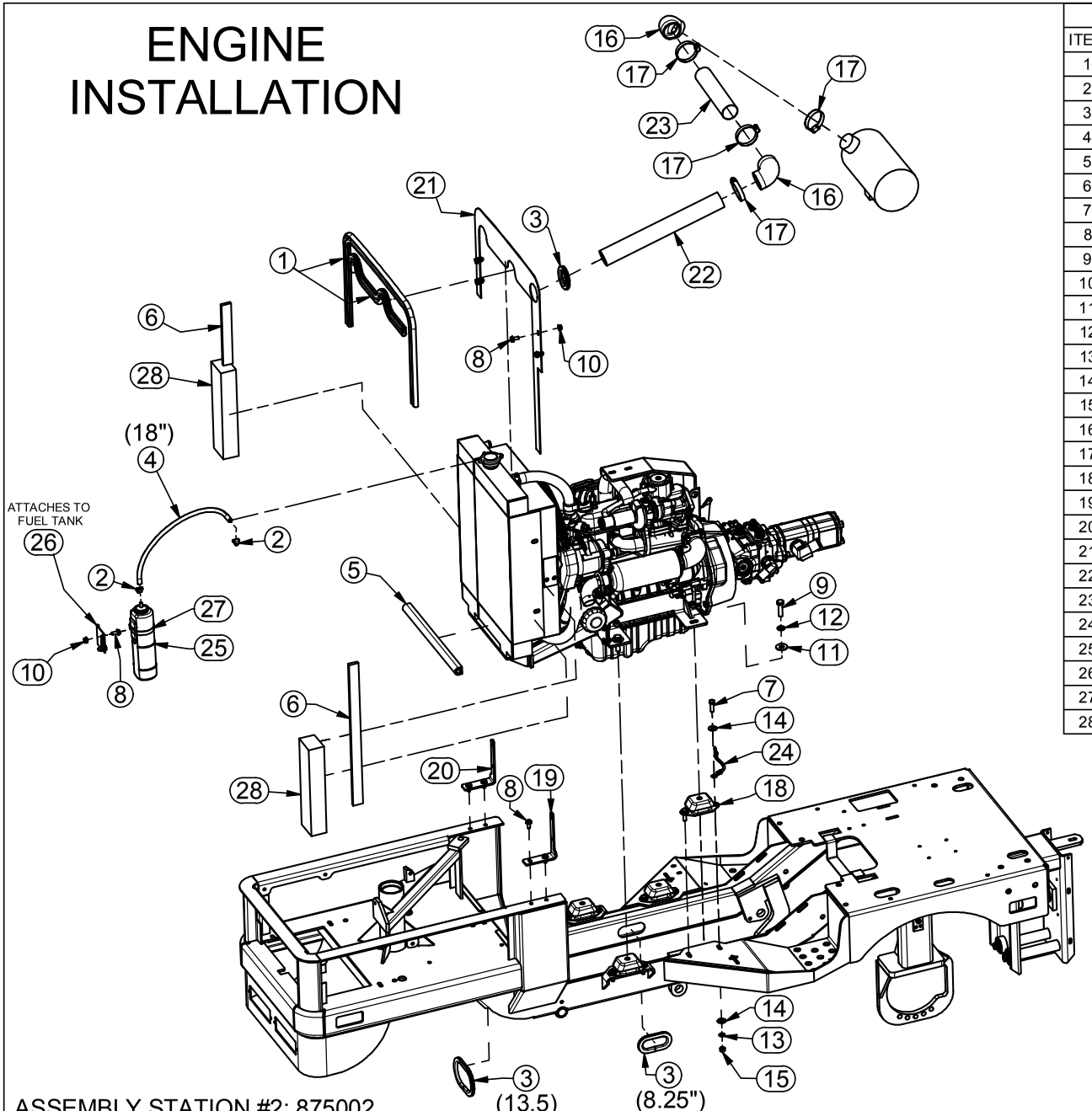




ASSEMBLY STATION #2: 875002

7/17/2019

# ENGINE INSTALLATION



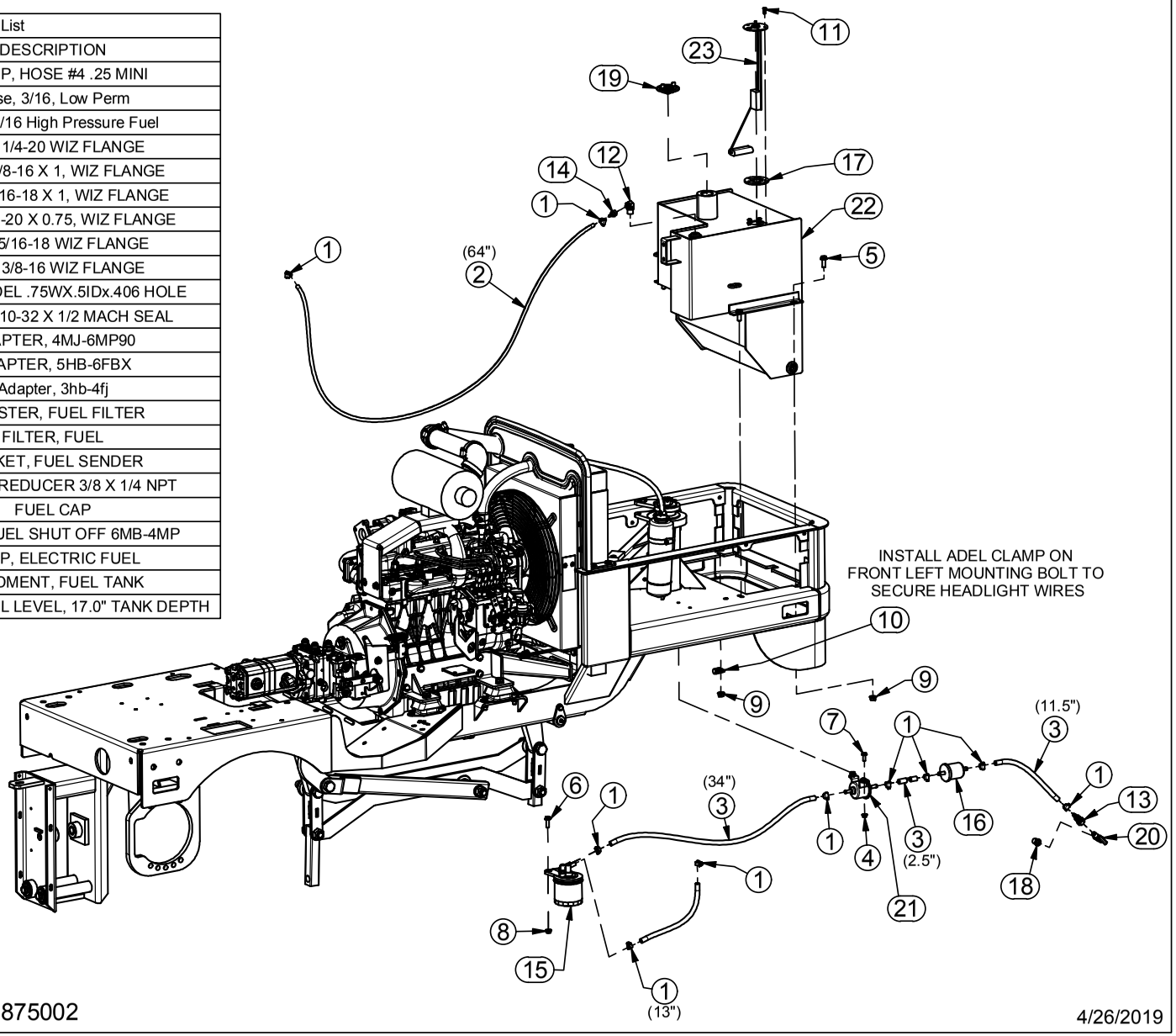

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 100360 | Molding, Bulb |
| 2 | 100361 | CLAMP, HOSE #4 .25 MINI |
| 3 | 100365 | Molding, Edge |
| 4 | 102001 | Hose, 5/16, Vacuum Tube |
| 5 | 102004 | D-SEAL, RUBBER 1.00" x 1.00" x 16.25" |
| 6 | 102088 | Foam Tape, 3/8 X 1 1/4 |
| 7 | 110425 | BOLT, 3/8-16 X 1.25 |
| 8 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE |
| 9 | 110577 | BOLT, M12x1.75 x 45 Gr 10.9 |
| 10 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 11 | 110658 | WASHER, 1/2" FLAT STANDARD |
| 12 | 110666 | WASHER, 1/2" LOCK |
| 13 | 110672 | WASHER, 3/8" LOCK |
| 14 | 110676 | WASHER, 3/8" FLAT STANDARD |
| 15 | 110826 | NUT, 3/8-16 GR 5 |
| 16 | 342050 | Elbow, 2.0" x 2.0" 90 Deg Silicone |
| 17 | 511003 | CLAMP, HOSE #36 2.25" |
| 18 | 800021 | MOTOR MOUNT |
| 19 | 810763 | BRKT, LH HOOD BAFFLE MOUNTING |
| 20 | 810764 | BRKT, RH HOOD BAFFLE MOUNTING |
| 21 | 810765 | BAFFLE, HOOD |
| 22 | 810827 | TUBE, AIR INTAKE |
| 23 | 810875 | TUBE, AIR INTAKE |
| 24 | 832001 | CABLE, GROUND |
| 25 | 840042 | SUBTANK, RESERVOIR |
| 26 | 840043 | SUBTANK BRACKET |
| 27 | 840044 | CLAMP, SUBTANK |
| 28 | 850115 | HOOD FOAM, 2x3x20" |

ASSEMBLY STATION #2: 875002

4/26/2019

# FUEL TANK INSTALLATION

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 100361 | CLAMP, HOSE #4 .25 MINI |
| 2 | 100708 | Hose, 3/16, Low Perm |
| 3 | 100756 | Hose, 5/16 High Pressure Fuel |
| 4 | 110290 | NUT, 1/4-20 WIZ FLANGE |
| 5 | 110440 | BOLT, 3/8-16 X 1, WIZ FLANGE |
| 6 | 110459 | BOLT, 5/16-18 X 1, WIZ FLANGE |
| 7 | 110468 | BOLT, 1/4-20 X 0.75, WIZ FLANGE |
| 8 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 9 | 110645 | NUT, 3/8-16 WIZ FLANGE |
| 10 | 110726 | CLAMP, ADEL .75WX.5IDx.406 HOLE |
| 11 | 112053 | SCREW, 10-32 X 1/2 MACH SEAL |
| 12 | 120040 | ADAPTER, 4MJ-6MP90 |
| 13 | 120378 | ADAPTER, 5HB-6FBX |
| 14 | 120655 | Adapter, 3hb-4fj |
| 15 | 302057 | CANISTER, FUEL FILTER |
| 16 | 302103 | FILTER, FUEL |
| 17 | 500172 | GASKET, FUEL SENDER |
| 18 | 500209 | FITTING, REDUCER 3/8 X 1/4 NPT |
| 19 | 802019 | FUEL CAP |
| 20 | 802023 | VALVE, FUEL SHUT OFF 6MB-4MP |
| 21 | 802062 | PUMP, ELECTRIC FUEL |
| 22 | 815084 | WELDMENT, FUEL TANK |
| 23 | 832078 | SENDER, FUEL LEVEL, 17.0" TANK DEPTH |



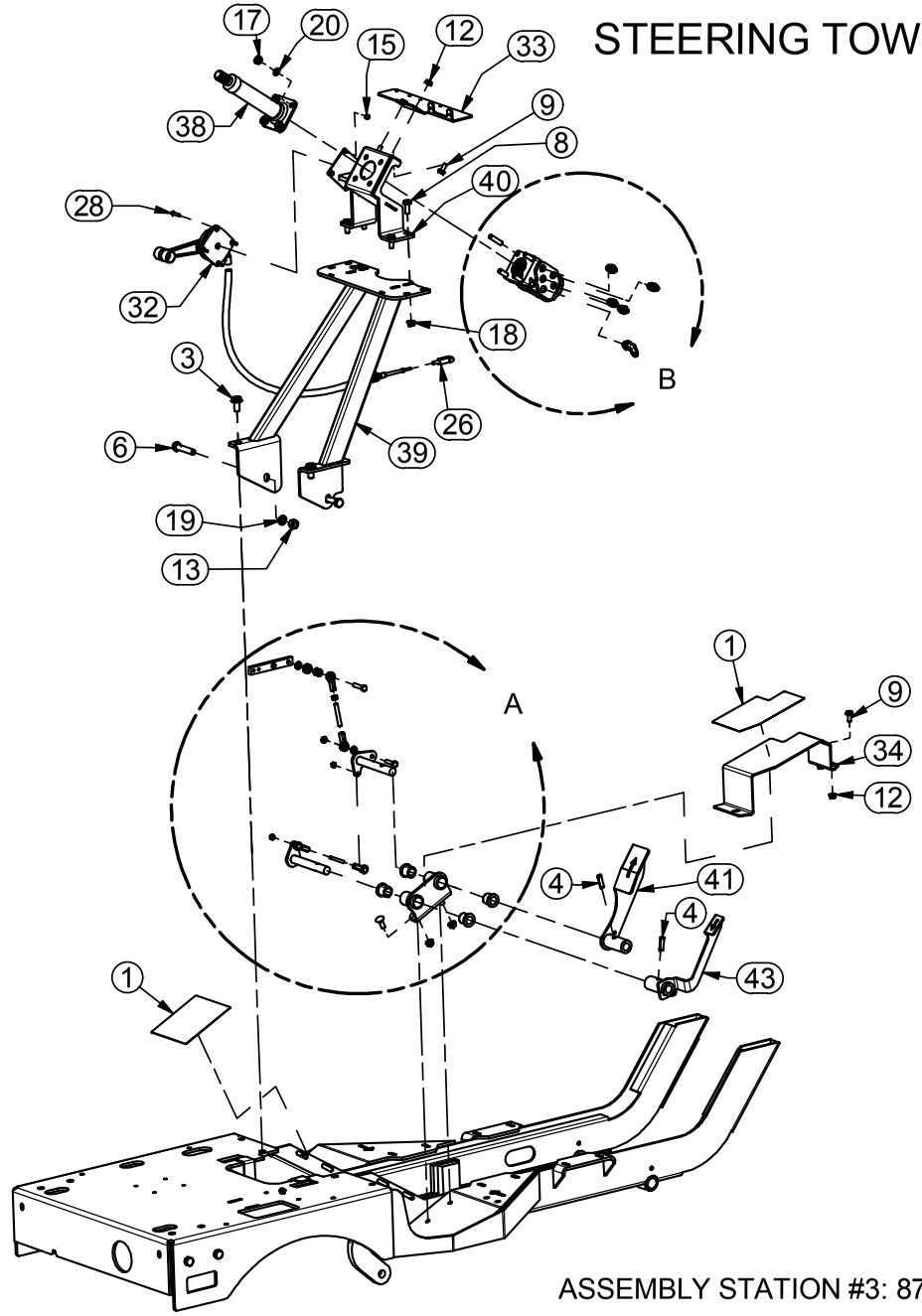

ASSEMBLY STATION #2: 875002

4/26/2019

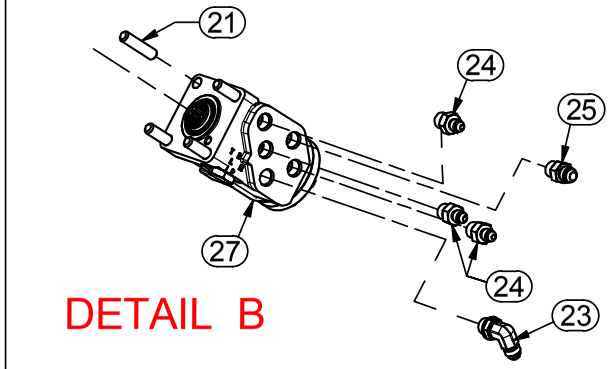


HARPER TURF EQUIPMENT

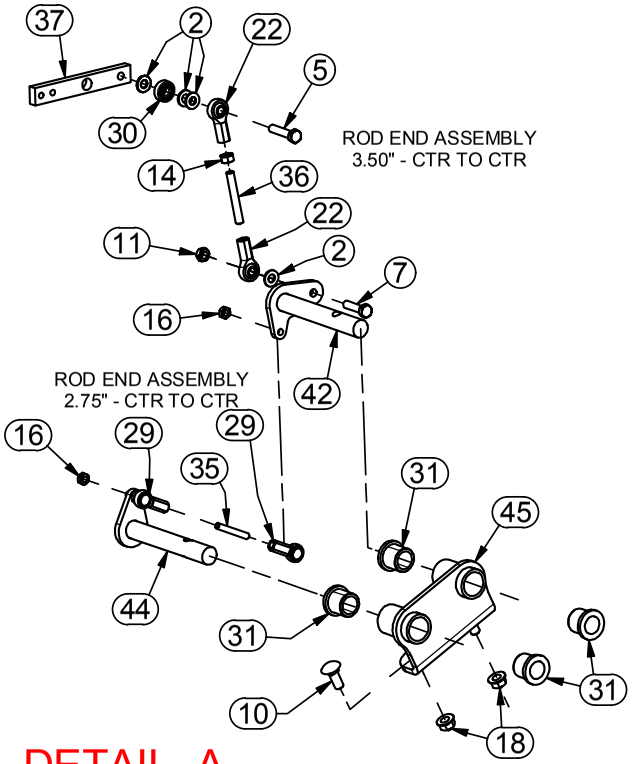
# STEERING TOWER & FOOT PEDAL INSTALLATION




ASSEMBLY STATION #3: 875003




DETAIL B




DETAIL A

4/26/2019

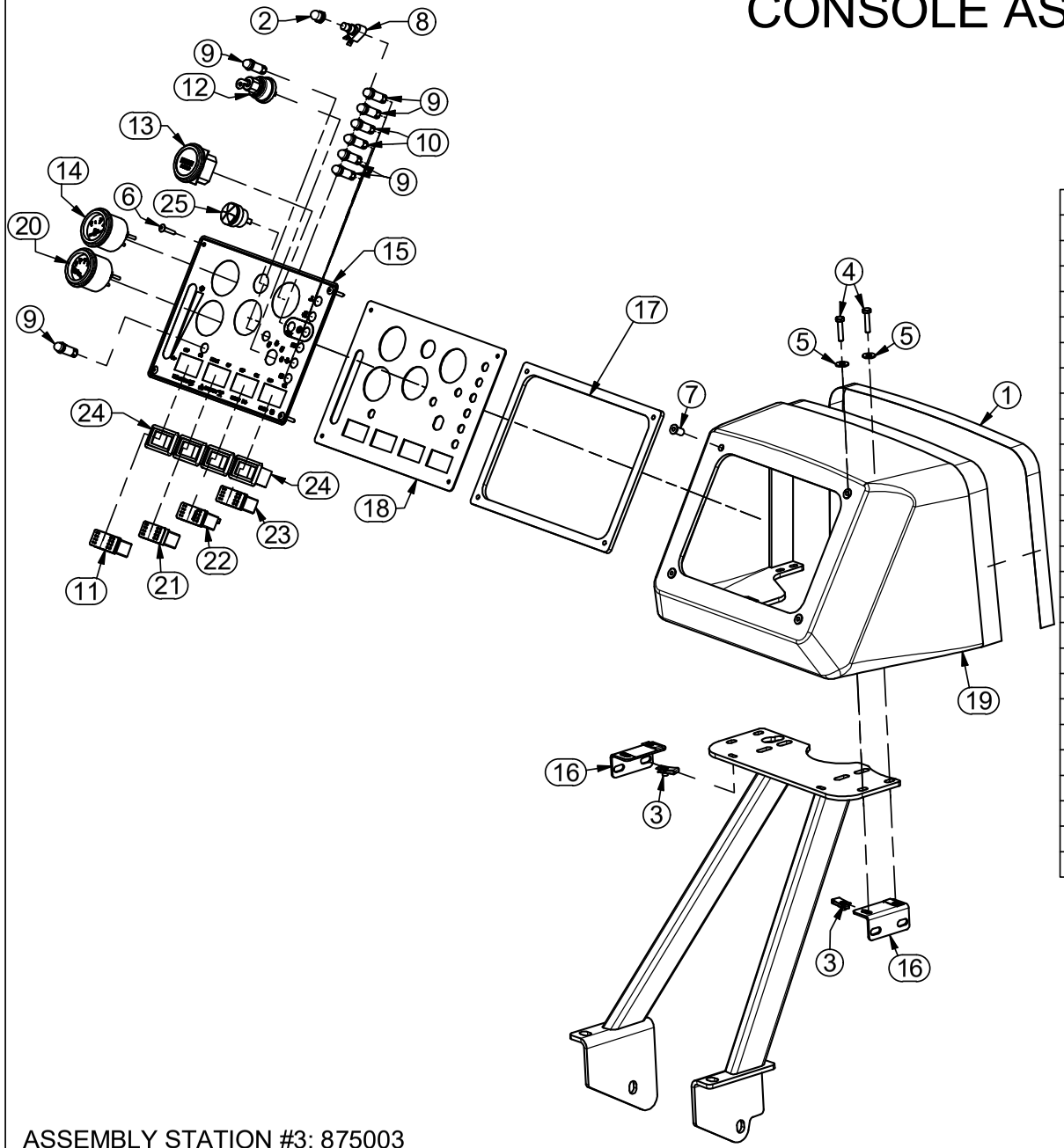
# STEERING TOWER & FOOT PEDAL INSTALLATION

| Parts List | | | Parts List | | |
|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 100373 | TRACTION PAD, FLEX-TREAD, 5.50" | 24 | 120249 | ADAPTER, 4MJ-6MB |
| 2 | 110069 | WASHER, 5/16" FLAT SAE | 25 | 120319 | ADAPTER, 6MJ-6MB |
| 3 | 110220 | BOLT, 1/2-13 X 1, WIZ FLANGE | 26 | 302017 | CLEVIS - THROTTLE |
| 4 | 110226 | ROLL PIN, 3/8 X 1.25 | 27 | 323046 | MOTOR, STEERING ORBITAL |
| 5 | 110377 | BOLT, 5/16-18 X 1-1/2 | 28 | 510094 | SCREW, 10-24 X 1, RHMS |
| 6 | 110403 | BOLT, 1/2-13 X 2.5 | 29 | 540075 | BEARING, ROD END 1/4-28 W/STUD |
| 7 | 110421 | BOLT, 5/16-18 X 1-1/4 | 30 | 540079 | BEARING, BALL, 1620RS |
| 8 | 110440 | BOLT, 3/8-16 X 1, WIZ FLANGE | 31 | 800128 | BUSHING, IGUS, FOOT PEDAL |
| 9 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE | 32 | 802057 | CABLE, THROTTLE |
| 10 | 110556 | Bolt, 3/8-16 X 1 in Carriage | 33 | 810847 | BRKT, RELAY & FUSE MOUNTING |
| 11 | 110600 | NUT, 5/16-18, UNITORQUE LOCK | 34 | 810884 | SUPPORT, FOOTREST |
| 12 | 110606 | NUT, 5/16-18 WIZ FLANGE | 35 | 810886 | LINKAGE, 1/4-28 FOOT PEDAL |
| 13 | 110610 | NUT, 1/2-13 | 36 | 810887 | LINKAGE, 5/16-24 FOOT PEDAL |
| 14 | 110623 | NUT, 5/16-24 | 37 | 810888 | BRKT, PUMP LEVER |
| 15 | 110631 | NUT, 10-24 LOCK NYLON INSERT | 38 | 812012 | COLUMN, STEERING |
| 16 | 110632 | NUT, 1/4-28, UNITORQUE LOCK | 39 | 815086 | WELDMENT, STEERING TOWER |
| 17 | 110640 | Hex Nut M10 | 40 | 815087 | WELDMENT, STEERING ORBITAL MOUNT |
| 18 | 110645 | NUT, 3/8-16 WIZ FLANGE | 41 | 815091 | WELDMENT, FWD FOOT PEDAL |
| 19 | 110666 | WASHER, 1/2" LOCK | 42 | 815092 | WELDMENT, FWD FOOT PEDAL PIVOT |
| 20 | 110689 | WASHER, M10, LOCK | 43 | 815093 | WELDMENT, REVERSE FOOT PEDAL |
| 21 | 111055 | STUD, M10 X 1.5 X 42 GRADE 8.8 | 44 | 815094 | WELDMENT, REV FOOT PEDAL PIVOT |
| 22 | 111150 | ROD END, 5/16-24 RH, FEMALE | 45 | 815095 | WELDMENT, FOOT PEDAL MOUNT |
| 23 | 120222 | ADAPTER, 6MJ-6MB90 | | | |

ASSEMBLY STATION #3: 875003

4/26/2019

# CONSOLE ASSEMBLY

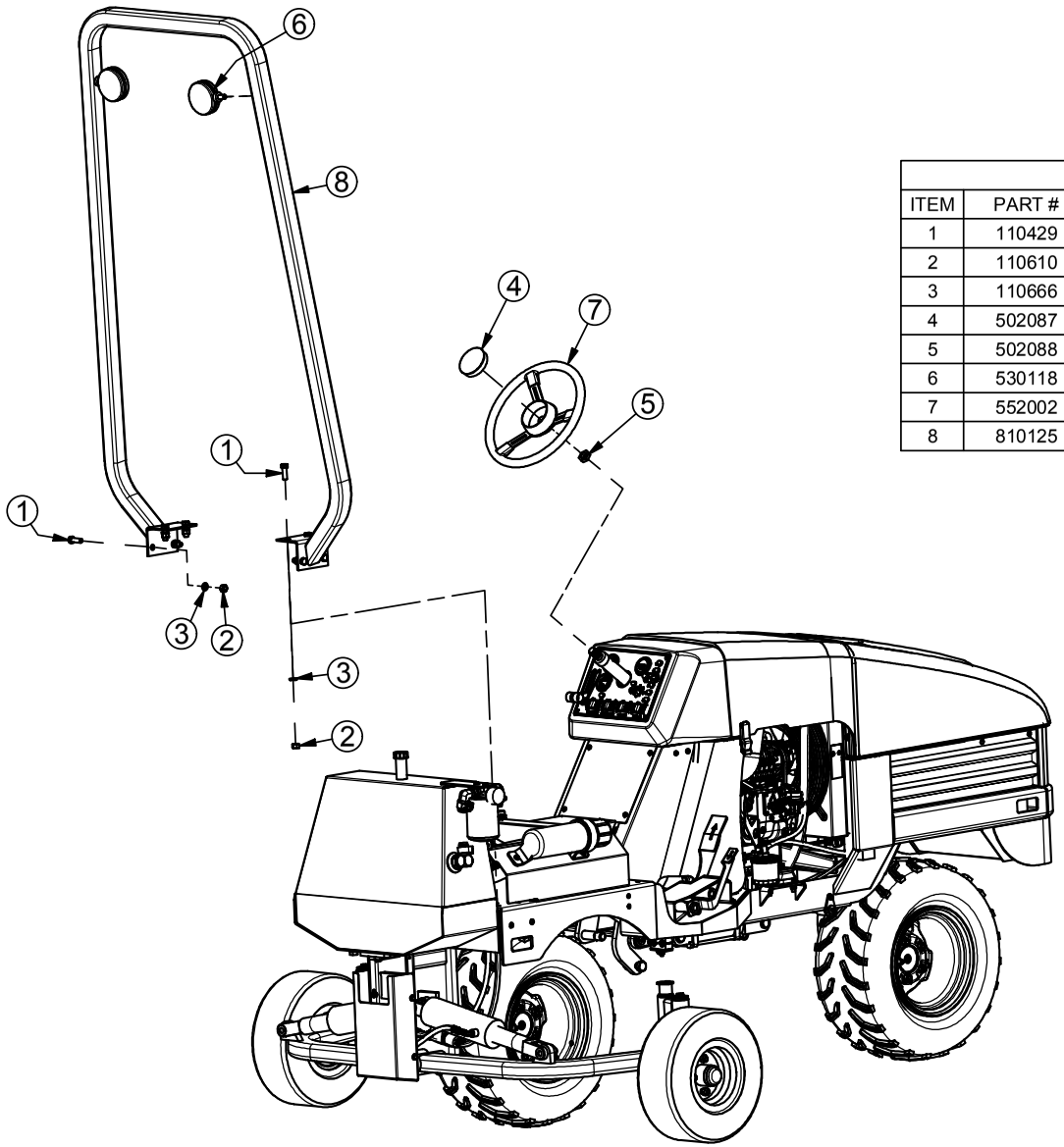



| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 102025 | Tape, 1.00 X .005 Poly Protective |
| 2 | 102123 | BOOT, PUSHBUTTON SWITCH SEALING |
| 3 | 110071 | 1/4-20 U-TYPE TAPPED HOLE |
| 4 | 110430 | BOLT, 1/4-20 X 1-1/4 |
| 5 | 110673 | WASHER, 1/4" FLAT STANDARD |
| 6 | 110751 | SCREW, 10-32 X 1 PHILLIPS |
| 7 | 110752 | NUT, 10-32 THREADED INSERT |
| 8 | 132090 | SWITCH, SPST MOMENTARY, N.C. |
| 9 | 132151 | LIGHT, RED INDICATOR |
| 10 | 132152 | LIGHT, AMBER INDICATOR |
| 11 | 132179 | Switch, Paddle, Carling DPDT, 2-Pos |
| 12 | 332031 | SWITCH, IGNITION |
| 13 | 530009 | HOUR METER |
| 14 | 530065 | GAUGE, FUEL |
| 15 | 802056 | DECAL, DASH OVERLAY |
| 16 | 810604 | COWLING BRACKET, SIDE |
| 17 | 810759 | INSTRUMENT PANEL SPACER |
| 18 | 810830 | PANEL, DASH |
| 19 | 812002 | COWLING DASH |
| 20 | 830008 | TEMPERATURE GAUGE |
| 21 | 832004 | SWITCH, PADDLE, CARLING (29261) |
| 22 | 832005 | SWITCH, PADDLE, CARLING (29253) |
| 23 | 832018 | SWITCH, SPDT, ON-ON |
| 24 | 832024 | MOUNT, SWITCH (VMS) |
| 25 | 832082 | ALARM, PANEL MOUNT, CONTINUOUS TONE |

ASSEMBLY STATION #3: 875003

5/12/2020

# ROPS & STEERING WHEEL INSTALLATION

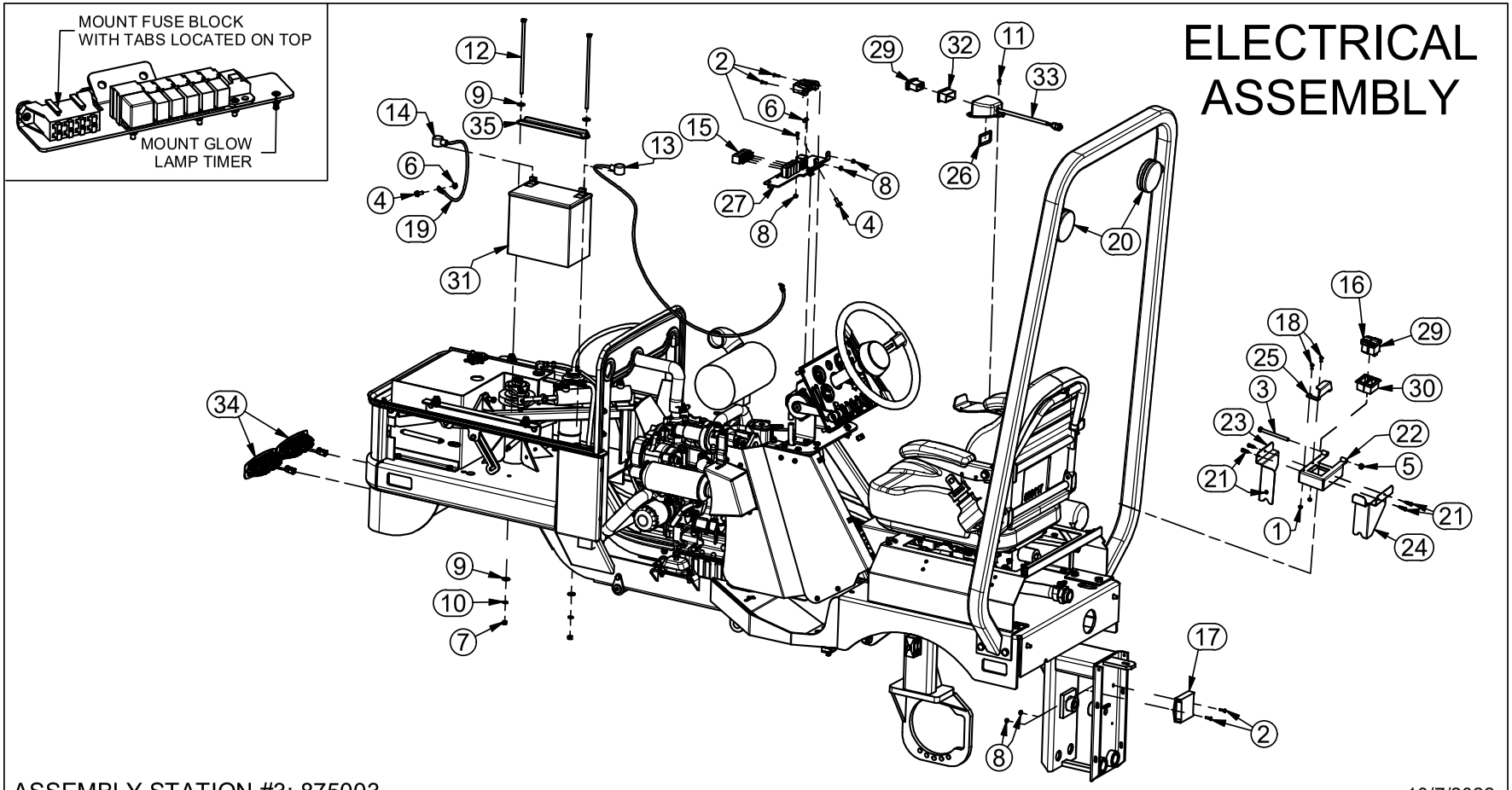



| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110429 | BOLT, 1/2-13 X 1.5 |
| 2 | 110610 | NUT, 1/2-13 |
| 3 | 110666 | WASHER, 1/2" LOCK |
| 4 | 502087 | Cap, Center Steering |
| 5 | 502088 | Nut, Steering Wheel, 13/16-20 UNEF |
| 6 | 530118 | HAZARD LIGHT |
| 7 | 552002 | STEERING WHEEL |
| 8 | 810125 | ROPS, ATM 72 |

ASSEMBLY STATION #4: 875004

2/25/2019

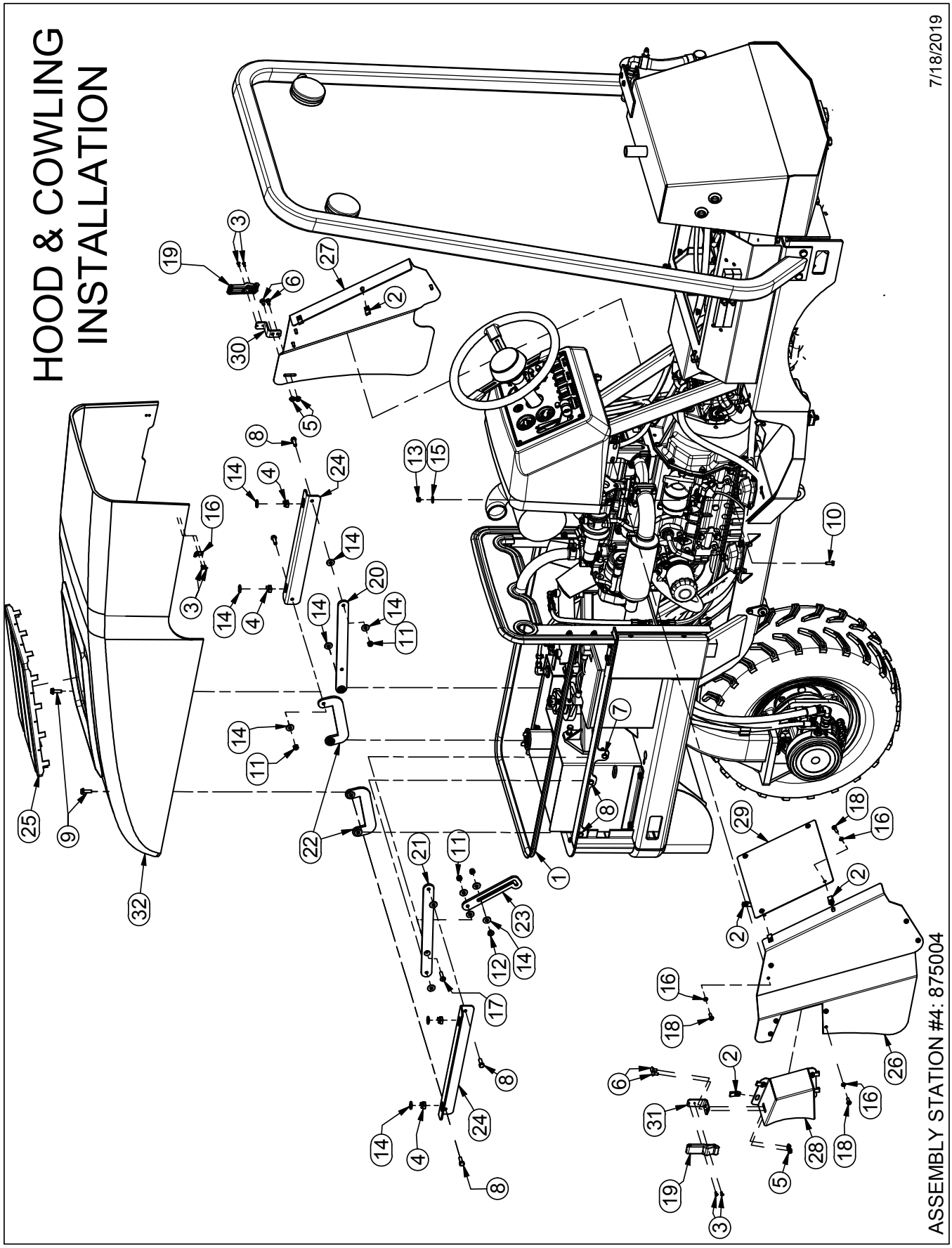
# ELECTRICAL ASSEMBLY




ASSEMBLY STATION #3: 875003

10/7/2022

| Parts List | | | Parts List | | | Parts List | | |
|---|---|---|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 110119 | NUT, 10-24 LOCK | 13 | 132069 | BATTERY TERMINAL COVER, POSITIVE | 25 | 810680 | SAFETY SWITCH BRACKET |
| 2 | 110164 | *Varies* | 14 | 132070 | BATTERY TERMINAL COVER, NEGATIVE | 26 | 810747 | SWITCH SHIM |
| 3 | 110441 | BOLT, 5/16-18 X 4.0 | 15 | 132099 | Micro Relay | 27 | 810847 | BRKT, RELAY & FUSE MOUNTING |
| 4 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE | 16 | 132179 | Switch, Paddle, Carling DPDT, 2-Pos | 28 | 830063 | CABLE, POSITIVE BATTERY |
| 5 | 110603 | NUT, 5/16-18 LOCK (NYLON) | 17 | 332036 | Inclinometer Switch, Solid-State | 29 | 832004 | SWITCH, PADDLE, CARLING (29261) |
| 6 | 110606 | NUT, 5/16-18 WIZ FLANGE | 18 | 510960 | SCREW, 10-24 X 0.5, RHMS | 30 | 832007 | SWITCH MOUNT, END |
| 7 | 110608 | NUT, 5/16-18 | 19 | 530051 | GROUND CABLE | 31 | 832011 | BATTERY, SEALED GEL W/ L TERMINAL |
| 8 | 110631 | NUT, 10-24 LOCK NYLON INSERT | 20 | 530118 | HAZARD LIGHT | 32 | 832024 | MOUNT, SWITCH (VMS) |
| 9 | 110665 | WASHER, 5/16" FLAT STANDARD | 21 | 710587 | SCREW, 3/16 X .75 TEK SELF-TAP | 33 | 832061 | MANUAL OVERRIDE, AUX SW HARNESS |
| 10 | 110674 | WASHER, 5/16" LOCK | 22 | 810611 | LEVELING SWITCH BRACKET | 34 | 835027 | HEADLIGHT ASSEMBLY, FLUSH MOUNT LED |
| 11 | 110788 | BOLT, 10-24 X .375 STAINLESS, PHILLIPS | 23 | 810665 | LEVELING SWITCH GUARD, FRONT | 35 | 970876 | BRKT, BATTERY HOLD DOWN |
| 12 | 111198 | BOLT, 5/16-18 X 9.5 Zinc Full Thread | 24 | 810666 | LEVELING SWITCH GUARD, BACK | | | |


HOOD & COWLING
INSTALLATION
7/18/2019
ASSEMBLY STATION #4: 875004

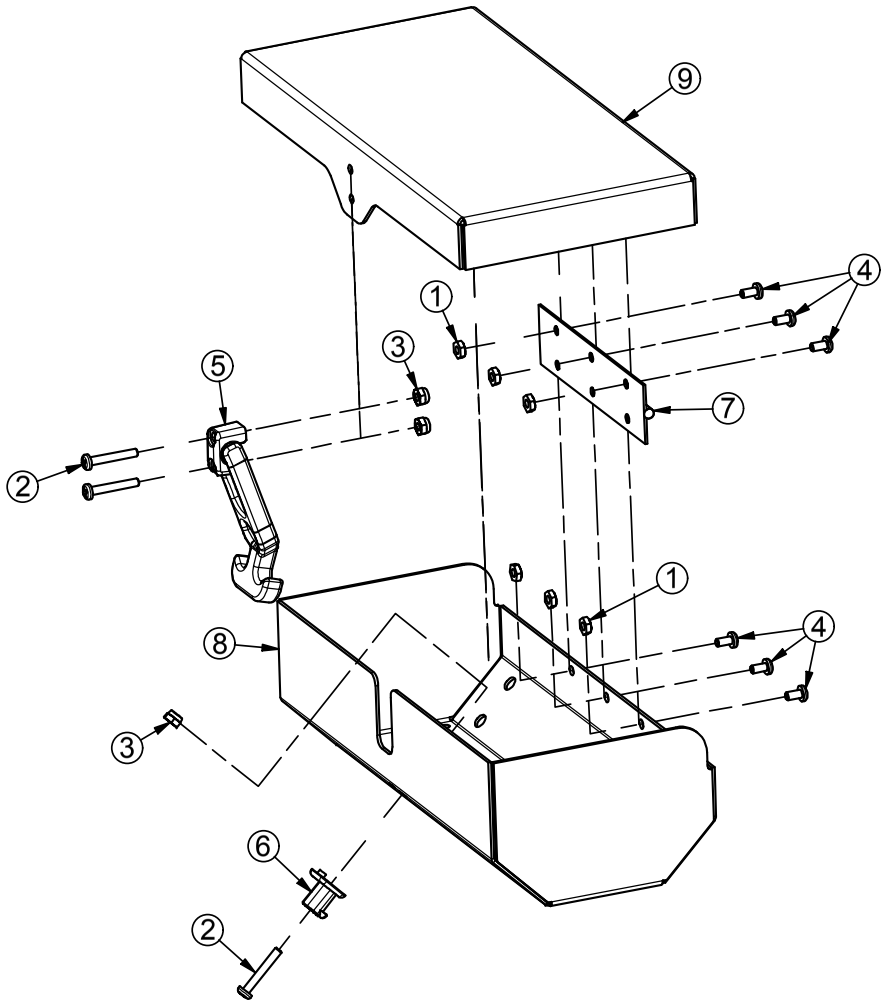
# HOOD & COWLING INSTALLATION

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 102127 | Seal, Rubber "D", .70 x .50 w/ .30 Flap |
| 2 | 110071 | 1/4-20 U-TYPE TAPPED HOLE |
| 3 | 110102 | RIVET, POP, 5/32 X .378 |
| 4 | 110258 | NUT, 5/16-18, CAGE TINNERMAN |
| 5 | 110290 | NUT, 1/4-20 WIZ FLANGE |
| 6 | 110358 | Bolt, 1/4-20 X 0.625 in Carriage |
| 7 | 110421 | BOLT, 5/16-18 X 1-1/4 |
| 8 | 110423 | BOLT, 5/16-18 X 1.0 |
| 9 | 110459 | BOLT, 5/16-18 X 1, WIZ FLANGE |
| 10 | 110561 | BOLT, 1/4-20 X .75 |
| 11 | 110603 | NUT, 5/16-18 LOCK (NYLON) |
| 12 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 13 | 110630 | NUT, 1/4-20 LOCK (NYLON INSERT) |
| 14 | 110665 | WASHER, 5/16" FLAT STANDARD |
| 15 | 110673 | WASHER, 1/4" FLAT STANDARD |
| 16 | 110698 | WASHER, 1/4 NYLON |
| 17 | 110730 | BOLT, 5/16-18 X 1.25 82° FLATHEAD |
| 18 | 110772 | SCREW, 1/4-20 X 1 SS PHILLIPS PAN HEAD |
| 19 | 500099 | LATCH |
| 20 | 810568 | HOOD LIFT ARM, REAR |
| 21 | 810569 | HOOD LIFT ARM, REAR LEFT |
| 22 | 810570 | HOOD LIFT ARM, FRONT |
| 23 | 810571 | SAFETY CATCH |
| 24 | 810572 | HOOD LIFT BRACKET |
| 25 | 810625 | TOP SCREEN |
| 26 | 810819 | COWLING, LEFT |
| 27 | 810820 | COWLING, RIGHT |
| 28 | 810821 | COWLING, EXHAUST |
| 29 | 810874 | COWLING, CENTER |
| 30 | 810917 | Bracket, Hood Mount, Right |
| 31 | 810918 | Bracket, Hood Mount, Left |
| 32 | 812004 | HOOD, DEWEZE RED |

ASSEMBLY STATION #4: 875004

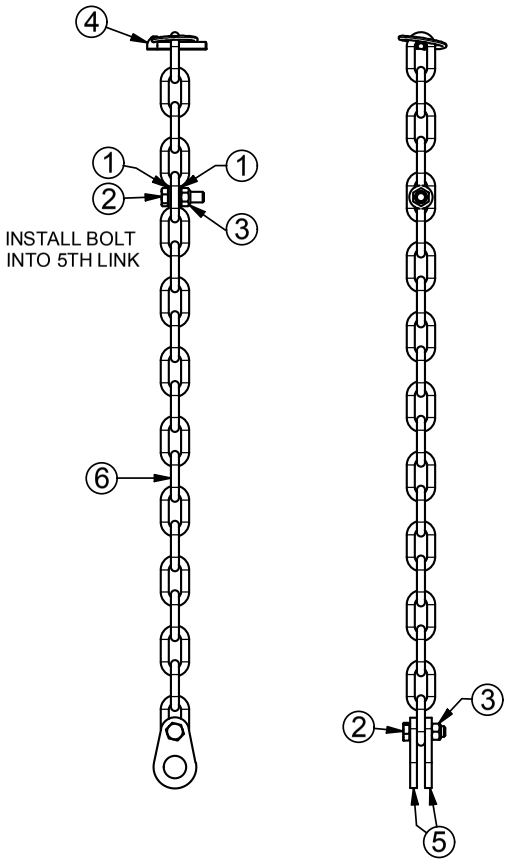
7/18/2019

# TOOLBOX ASSEMBLY - 805017




| Parts List | | | Parts List | | |
|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 110119 | NUT, 10-24 LOCK | 6 | 112106 | Keeper, Draw Latch |
| 2 | 110339 | SCREW, 10-24X1.25 PAN HEAD PHPS | 7 | 311729 | HINGE, 6" ALUMINUM W/ HOLES |
| 3 | 110631 | NUT, 10-24 LOCK NYLON INSERT | 8 | 810911 | BASE, TOOLBOX |
| 4 | 110788 | BOLT, 10-24 X .375 STAINLESS, PHILLIPS | 9 | 810912 | LID, TOOLBOX |
| 5 | 112105 | LATCH, RUBBER T-HANDLE DRAW | | | |

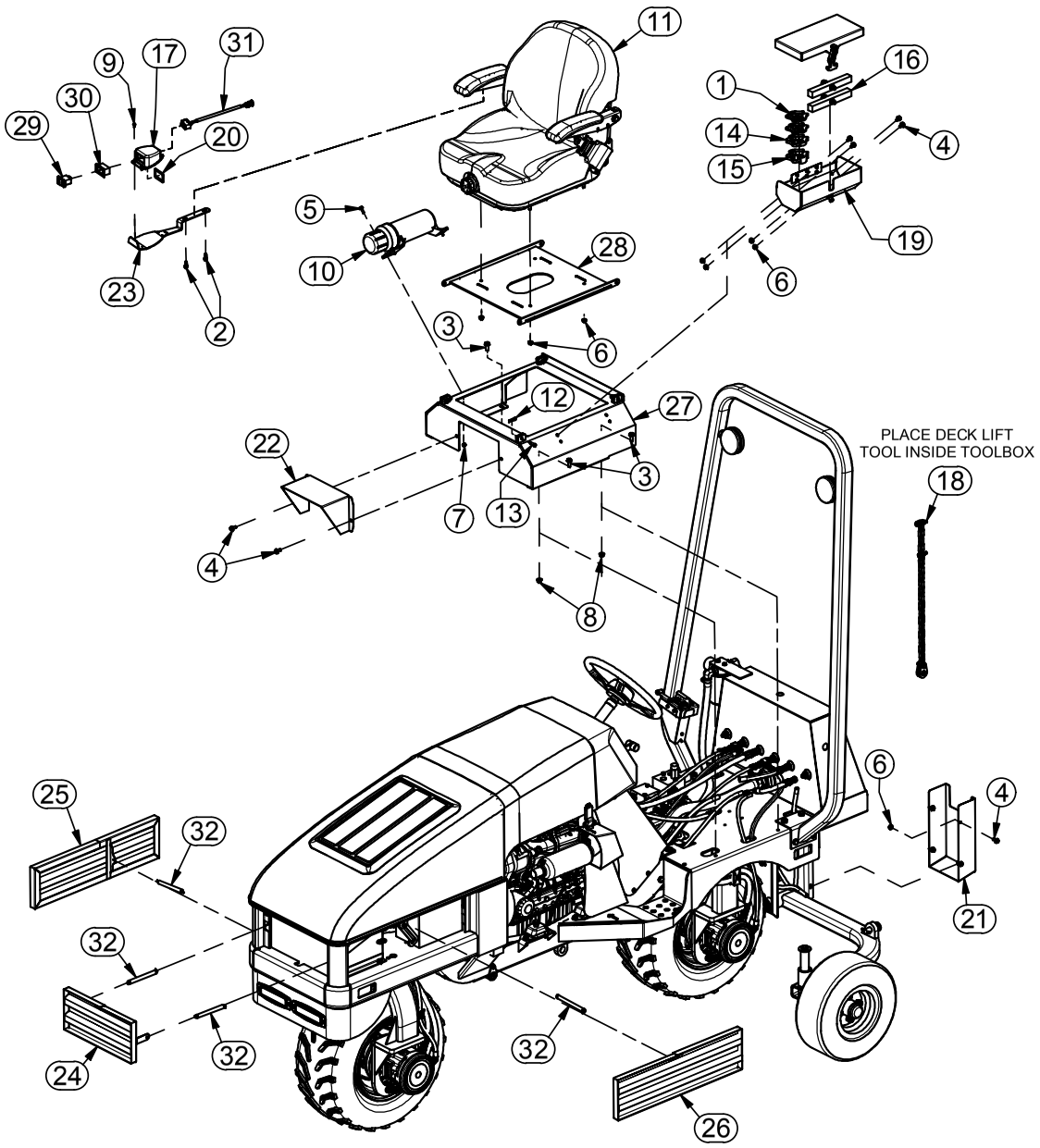
# DECK LIFT ASSIST TOOL - 805016




| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110155 | WASHER, 3/8" FLAT SAE |
| 2 | 110425 | BOLT, 3/8-16 X 1.25 |
| 3 | 110621 | NUT, 3/8-16, UNITORQUE LOCK |
| 4 | 411287 | Pin, Lynch 5/16 x 1 3/4 |
| 5 | 810889 | BRKT, DECK LIFT |
| 6 | 970304 | CHAIN, 1/4 COIL |

2/26/2019

# SEAT & SCREENS INSTALLATION




| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 102077 | CYLINDER STOP, 1/4" THICK |
| 2 | 110199 | SCREW, 1/4-20 X .75, WH SELF TAP |
| 3 | 110440 | BOLT, 3/8-16 X 1, WIZ FLANGE |
| 4 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE |
| 5 | 110468 | BOLT, 1/4-20 X 0.75, WIZ FLANGE |
| 6 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 7 | 110630 | NUT, 1/4-20 LOCK (NYLON INSERT) |
| 8 | 110645 | NUT, 3/8-16 WIZ FLANGE |
| 9 | 110788 | BOLT, 10-24 X .375 STAINLESS, PHILLIPS |
| 10 | 152004 | HOLDER, MANUAL |
| 11 | 302078 | SEAT, I3M SUSPENSION |
| 12 | 312022 | CLIP, HAIRPIN 3/32 x 1.625 |
| 13 | 550048 | CLEVIS PIN, 5/16" |
| 14 | 572003 | CYLINDER STOP, 1/2" THICK |
| 15 | 572005 | CYLINDER STOP, 1" THICK |
| 16 | 575064 | TOOL, BRAKE RELEASE |
| 17 | 802035 | BOX, PLASTIC, MANUAL OVERRIDE |
| 18 | 805016 | TOOL, DECK LIFT ASSIST |
| 19 | 805017 | ASSEMBLY, TOOLBOX |
| 20 | 810747 | SWITCH SHIM |
| 21 | 810811 | BIN, REAR STORAGE |
| 22 | 810812 | COWLING, LOWER |
| 23 | 810818 | MOUNT, ARM REST SWITCH |
| 24 | 815022 | GRILL, FRONT |
| 25 | 815023 | GRILL, SIDE RIGHT |
| 26 | 815045 | GRILL, SIDE LEFT |
| 27 | 815079 | WELDMENT, SEAT BASE |
| 28 | 815088 | WELDMENT, SEAT MOUNT |
| 29 | 832004 | SWITCH, PADDLE, CARLING (29261) |
| 30 | 832024 | MOUNT, SWITCH (VMS) |
| 31 | 832061 | MANUAL OVERRIDE, AUX SW HARNESS |
| 32 | 942055 | SPRING |

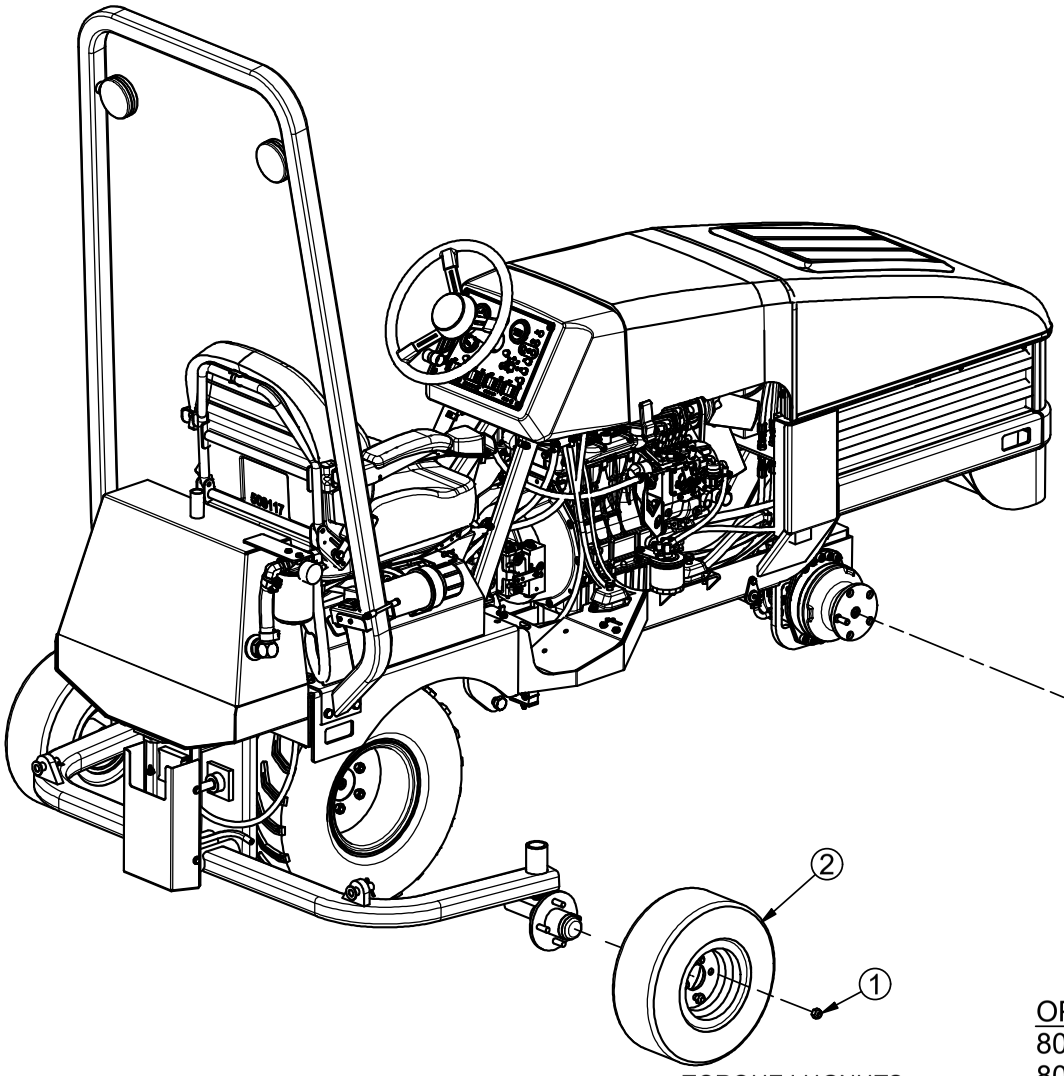
ASSEMBLY STATION #4: 875004

7/18/2019

# WHEEL & TIRE INSTALLATION

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110617 | LUGNUT, 1/2-20 GR 5 |
| 2 | 800057 | FILLED STABILIZER TIRE ASSEMBLY |
| 3 | 843007 | TIRE & WHEEL ASSY, 72LC |

| 843007 - Service Parts | |
|---|---|
| PART # | DESCRIPTION |
| 842019 | WHEEL, 12 X 8.50 |
| 842020 | TIRE, 25x11-12 440 MAG |




OPTIONAL WHEEL WEIGHT KIT
801004 - CUSTOMER INSTALL
801005 - FACTORY INSTALL

ASSEMBLY STATION #4: 875004

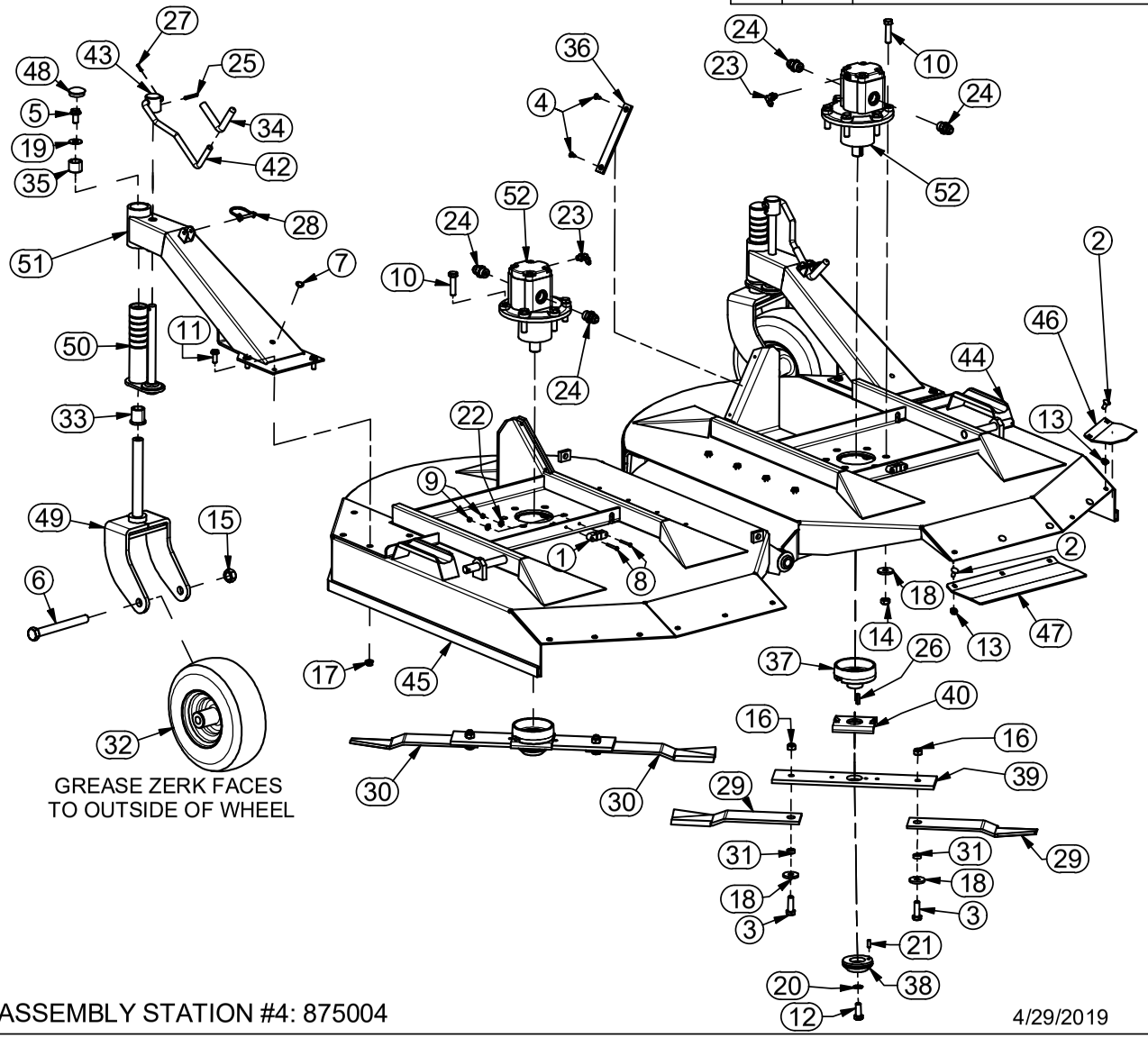
6/5/2020

# DECK ASSEMBLY

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 50 | 815003 | ADJUSTMENT SCREW WELD ASSY |
| 51 | 815005 | CASTER ARM WELD ASSY, LEFT |
| 52 | 823016 | MOTOR, DECK, BI-DIRECTIONAL, 1.65 CI |

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 45 | 810405 | DECK WELDMENT, LEFT |
| 46 | 810919 | SHIELD, OUTER FOOT |
| 47 | 810920 | SHIELD, REAR FOOT |
| 48 | 812001 | DUST CAP |
| 49 | 815002 | CASTER YOKE WELD ASSY |

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 102119 | LEVEL, SURFACE MOUNT |
| 2 | 110020 | Bolt, 5/16-18 X 0.75 in Carriage |
| 3 | 110051 | BOLT, 1/2-20 X 1.5, GR8 |
| 4 | 110067 | SCREW, 1/4-20 X .50 SLOT FLAT-HD |
| 5 | 110220 | BOLT, 1/2-13 X 1, WIZ FLANGE |
| 6 | 110272 | BOLT, 3/4-10 X 6.75, HHCS |
| 7 | 110283 | PLUG, 7/16", NYLON, SNAP LOCK |
| 8 | 110344 | SCREW, 8-32X1.5 PAN HEAD PHPS |
| 9 | 110345 | NUT, 8-32 LOCK NYLON |
| 10 | 110379 | BOLT, 1/2-13 X 2.0 |
| 11 | 110440 | BOLT, 3/8-16 X 1, WIZ FLANGE |
| 12 | 110442 | BOLT, 1/2-13 X 1.25 |
| 13 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 14 | 110615 | NUT, 1/2-13, UNITORQUE LOCK |
| 15 | 110625 | NUT, 3/4-10, UNITORQUE LOCK |
| 16 | 110635 | NUT, 1/2-20, UNITORQUE LOCK |
| 17 | 110645 | NUT, 3/8-16 WIZ FLANGE |
| 18 | 110660 | WASHER, 1/2 FLAT SPECIAL 1.5 OD |
| 19 | 110670 | WASHER, 7/16" FLAT STANDARD |
| 20 | 110681 | WASHER, 1/2 EXT. TOOTH LOCK |
| 21 | 110700 | ROLL PIN, 1/4 X 0.75 |
| 22 | 111013 | WASHER, M5 FLAT STAINLESS |
| 23 | 120235 | ADAPTER, 4MJ-4MB90 |
| 24 | 120251 | ADAPTER, 10MJ-10MB |
| 25 | 200028 | ROLL PIN, 1/4 X 1.5 |
| 26 | 510228 | KEY, 1/4 X 1/4 X 1.0 in |
| 27 | 510403 | ROLL PIN, 3/16 X 0.75 |
| 28 | 510962 | PIN, WIRE LOCK |
| 29 | 511134 | BLADE, RIGHT |
| 30 | 511135 | BLADE, LEFT |
| 31 | 511136 | BUSHING, BLADE MOUNT |
| 32 | 800093 | CASTER WHEEL ASSY |
| 33 | 800124 | BUSHING, MFI-1620-24 |
| 34 | 802001 | COVER, VINYL, 1/2 RND X 6.0 |
| 35 | 802004 | BUSHING, MSI-1620-16 |
| 36 | 810278 | PLASTIC BUMPER, MOTOR GUARD |
| 37 | 810358 | HUB, BLADE MOUNT MACHINED |
| 38 | 810360 | WASHER, BLADE MOUNT |
| 39 | 810361 | BLADE MOUNT |
| 40 | 810364 | BLADE SADDLE |
| 42 | 810392 | CRANK, CASTER HEIGHT, LEFT |
| 43 | 810393 | CRANK PIVOT |
| 44 | 810404 | DECK WELDMENT, RIGHT |

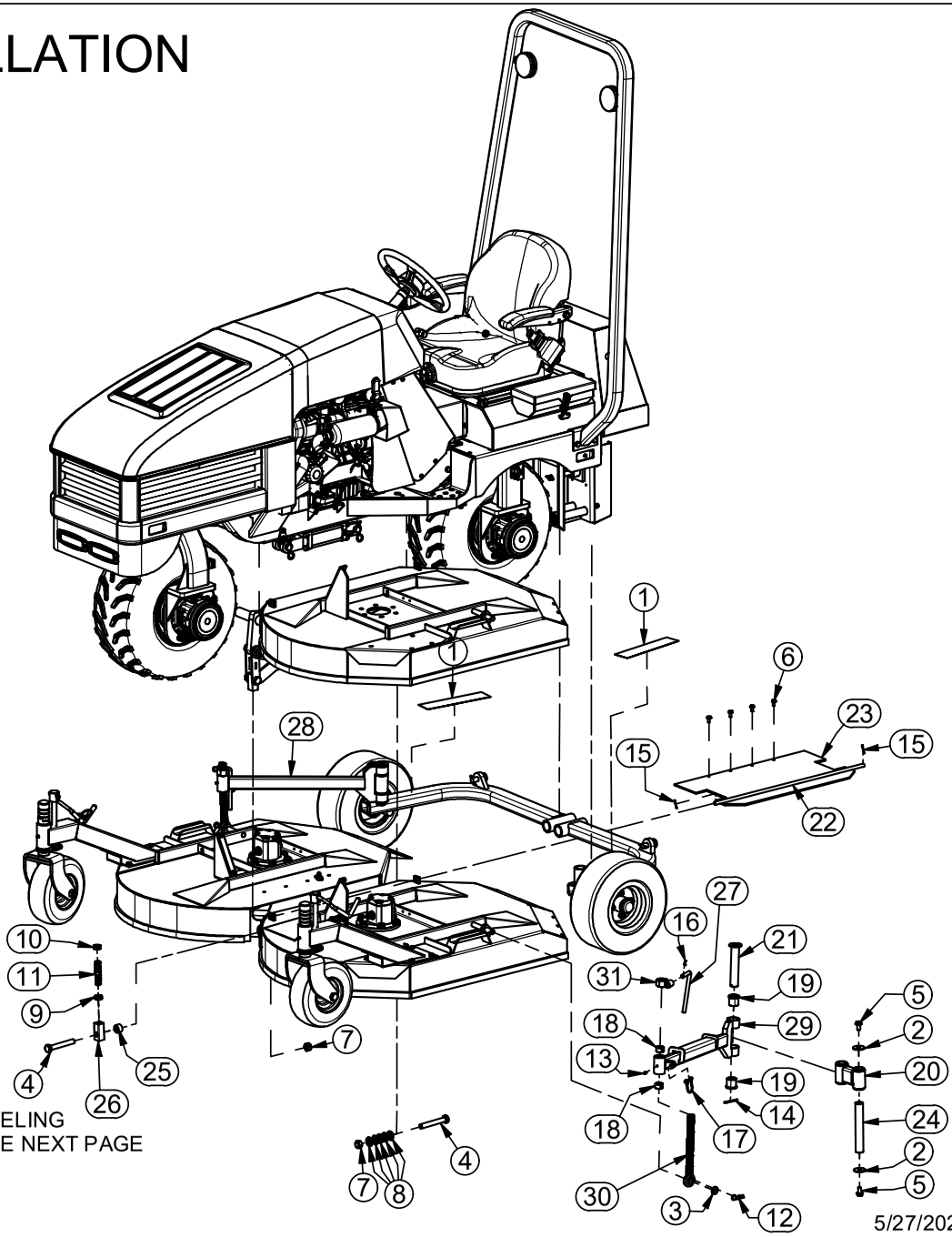



ASSEMBLY STATION #4: 875004

4/29/2019

# DECK INSTALLATION

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 100449 | TRACTION PAD, FLEX-TREAD 2.75" x 1.0' |
| 2 | 110052 | WASHER, 1.875 X .563 X .125, FLAT SPECIAL |
| 3 | 110068 | WASHER, 1.25 OD X .75 ID X .075 |
| 4 | 110070 | BOLT, 3/4-10 X 5.0 |
| 5 | 110220 | BOLT, 1/2-13 X 1, WIZ FLANGE |
| 6 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE |
| 7 | 110625 | NUT, 3/4-10, UNITORQUE LOCK |
| 8 | 110678 | WASHER, 3/4" FLAT SAE |
| 9 | 110891 | NUT, 3/4-16 JAM LH |
| 10 | 110892 | NUT, JAM 3/4-16 UNF RH |
| 11 | 111159 | JACK SCREW, 3/4-16 X 4.0 |
| 12 | 500156 | Pin, Hairpin Cotter, 1/8 X 2.375 |
| 13 | 510174 | GREASE ZERK, 1/4-28 ST |
| 14 | 510175 | COTTER PIN, 3/16 X 2 |
| 15 | 510176 | COTTER PIN, 1/8 X 1 |
| 16 | 510403 | ROLL PIN, 3/16 X 0.75 |
| 17 | 510962 | PIN, WIRE LOCK |
| 18 | 800026 | BUSHING, 1.25 X 1.0 X .75 SPLIT STEEL |
| 19 | 800129 | BUSHING, IGUS MFI-2024-24 |
| 20 | 810130 | EQUALIZER ARM ASSY |
| 21 | 810238 | PIN ASSY, EQUILIZER ARM MOUNT |
| 22 | 810477 | HOLD DOWN ROD, CENTER DECK COVER |
| 23 | 810489 | PLASTIC DECK COVER |
| 24 | 810610 | VERTICAL SHAFT |
| 25 | 810802 | BUSHING, 1.25 X .75 X .75 |
| 26 | 810843 | LINK, LH THREAD ADJUSTABLE |
| 27 | 810916 | HANDLE, HEIGHT ADJUSTMENT |
| 28 | 805018 | OUTER DECK ARM, RH, W/O STEP |
| 29 | 805019 | OUTER DECK ARM, LH, W/TREAD-GRIP STEP |
| 30 | 815042 | SLIDE ASSY SHORT, OUTER DECK ADJ |
| 31 | 815107 | WELDMENT, DECK ADJUSTMENT |




SEE DECK LEVELING
INSTRUCTIONS ON THE NEXT PAGE

ASSEMBLY STATION #4: 875004

5/27/2022

# DECK INSTALLATION - SETTING THE DECK RAKE AND HEIGHT

1. ENSURE THAT BOTH TIRES ARE INFLATED TO 15 PSI.

2. MEASURE THE HEIGHT OF THE REAR DECK MOUNTING BOLT.

3. USING THE TURNBUCKLE LOCATED ON THE FRONT DECK MOUNT, ADJUST THE FRONT DECK HEIGHT TO BE 1/4" LOWER THAN THE REAR.

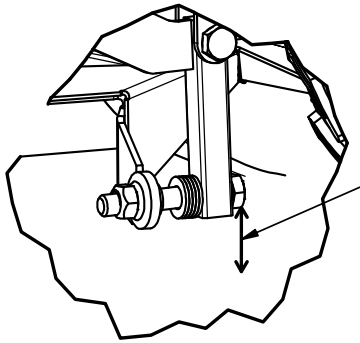
4. ONCE HEIGHT IS SET, APPLY BLUE LOCTITE TO THE JAM NUTS & TIGHTEN TO LOCK TURNBUCKLE IN PLACE.

5. ENSURE THAT FRONT CASTER WHEELS ARE NOT TOUCHING THE GROUND.

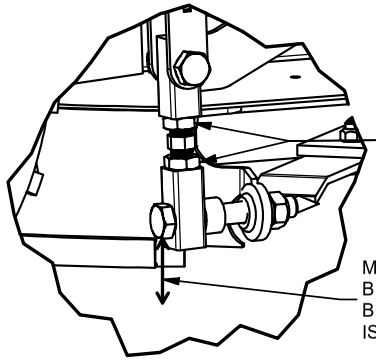
6. USING OUTER DECK ADJUSTMENTS, ADJUST WINGS SO THAT THE BUBBLE ON THE LEVEL IS BETWEEN THE LINES.

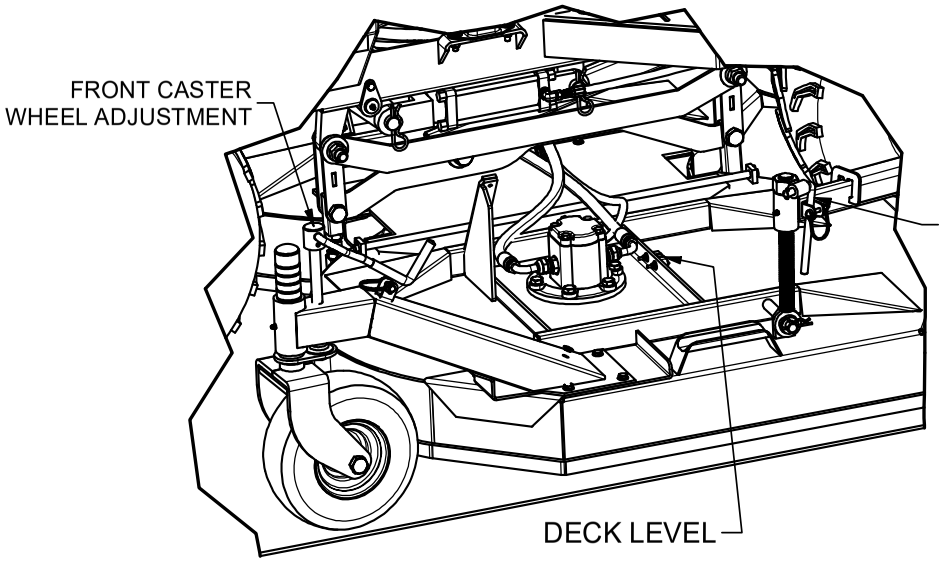
7. ADJUST FRONT CASTER WHEELS DOWN TO JUST CONTACT THE GROUND. THE FRONT CASTER WHEELS ARE INTENDED TO BE USED AS ANTI-SCALP WHEELS AND SHOULD NOT BE USED TO SET THE CUT HEIGHT.

REAR DECK MOUNTING BOLT

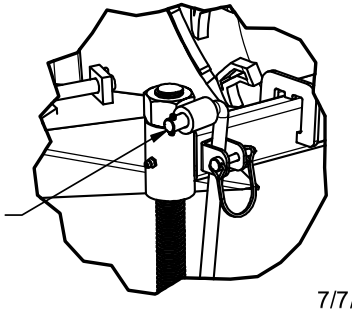



FRONT DECK MOUNTING BOLT & TURNBUCKLE



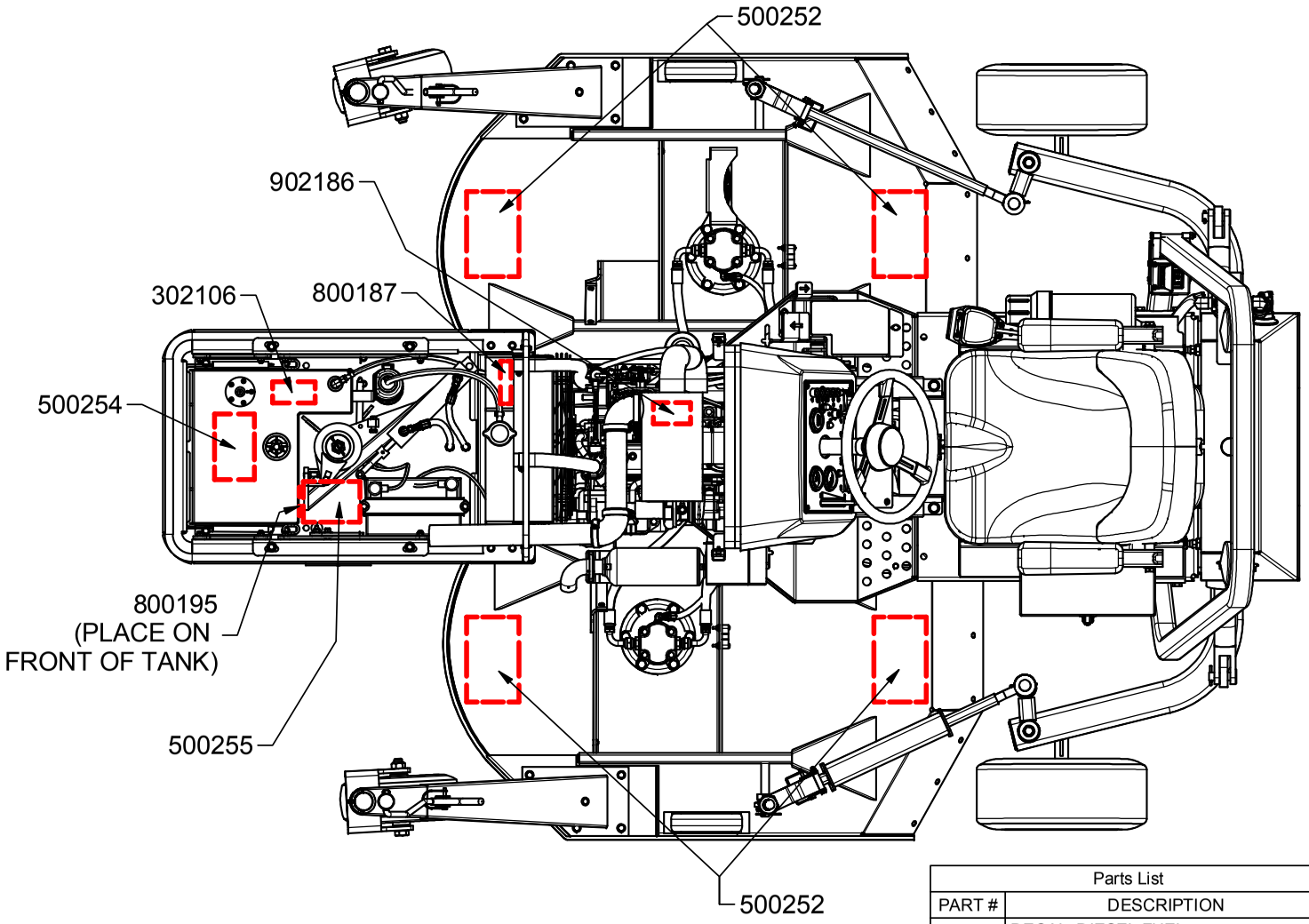

OUTER DECK WING ADJUSTMENT



ORIENT HANDLE SO THAT THE ROLL PIN IS LOCATED ON THE FRONT SIDE WHEN THE HANDLE IS STOWED

7/7/2021

# DECAL LAYOUT - TOP VIEW

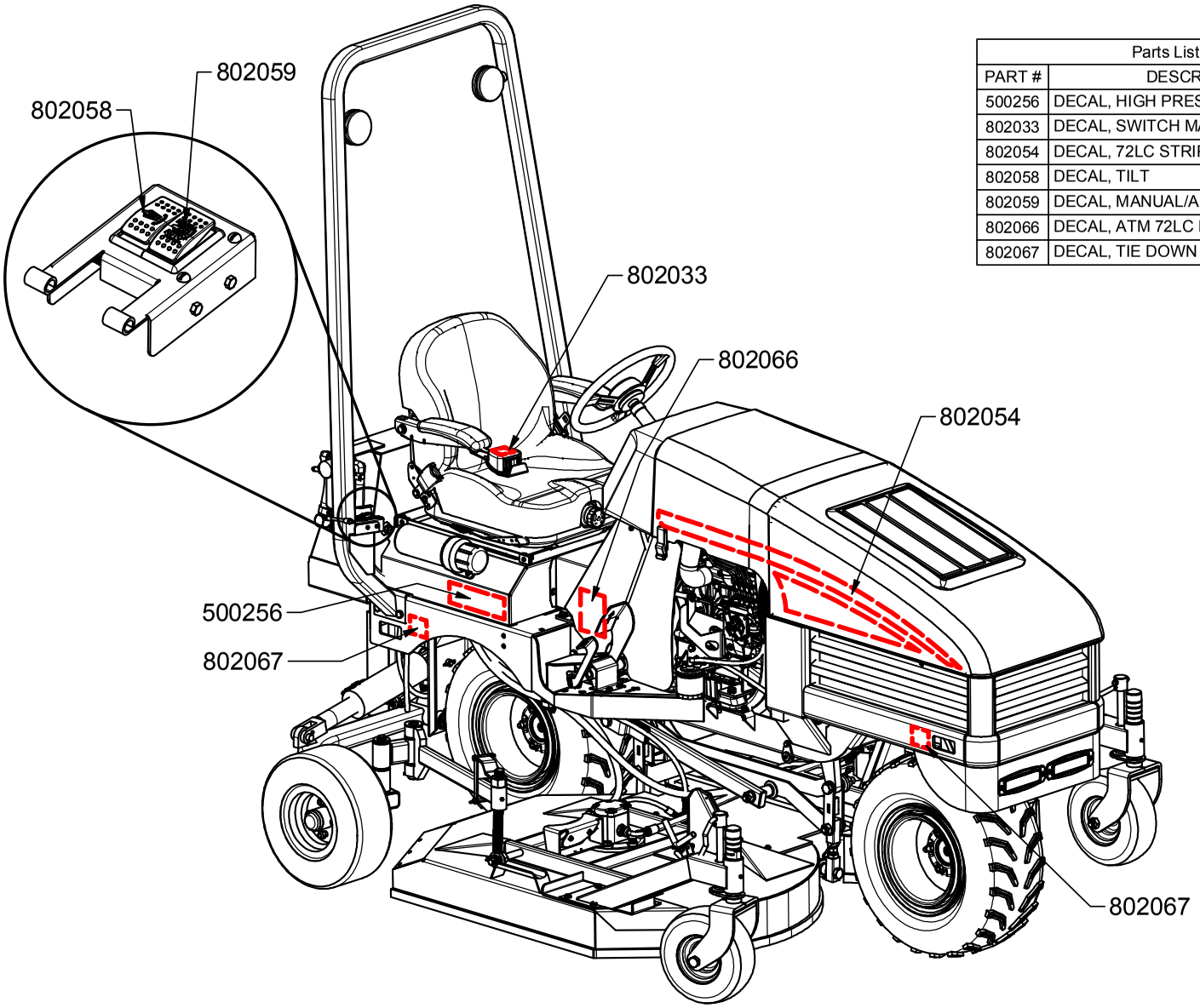



| Parts List | |
|---|---|
| PART # | DESCRIPTION |
| 302106 | DECAL, DIESEL FUEL |
| 500252 | DECAL, DANGER, ROTATING BLADES |
| 500254 | DECAL, FUEL |
| 500255 | DECAL, BATTERY |
| 800187 | DECAL, SERVICE RADIATOR |
| 800195 | DECAL, RECYCLE BATTERY |
| 902186 | DECAL, EPA STANDARDS |

ASSEMBLY STATION #4: 875004

3/4/2019

# DECAL LAYOUT - RH SIDE



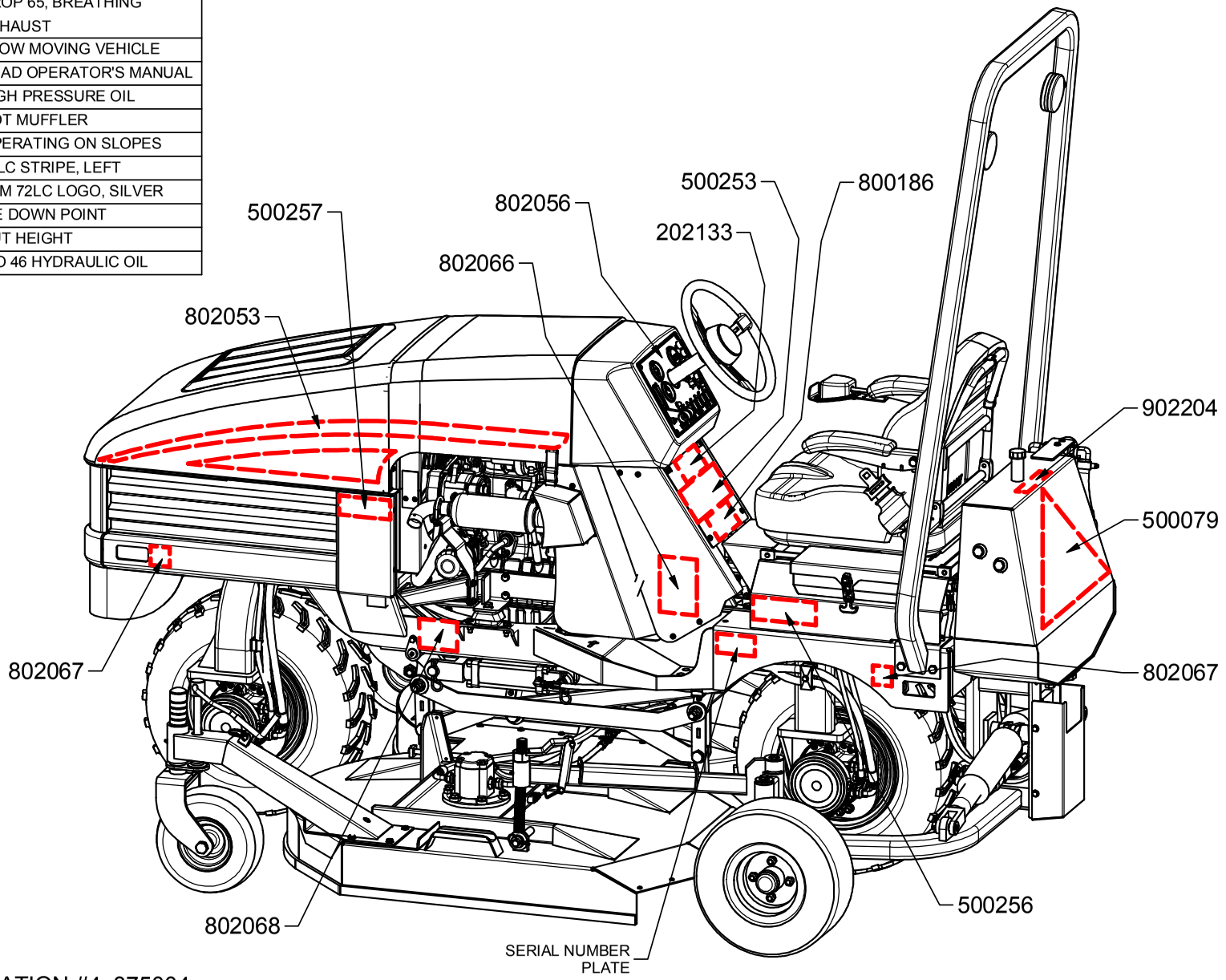

| Parts List | |
|---|---|
| PART # | DESCRIPTION |
| 500256 | DECAL, HIGH PRESSURE OIL |
| 802033 | DECAL, SWITCH MANUAL LEVEL CTL |
| 802054 | DECAL, 72LC STRIPE, RIGHT |
| 802058 | DECAL, TILT |
| 802059 | DECAL, MANUAL/AUTO LEVEL |
| 802066 | DECAL, ATM 72LC LOGO, SILVER |
| 802067 | DECAL, TIE DOWN POINT |

ASSEMBLY STATION #4: 875004

3/4/2019

# DECAL LAYOUT - LH SIDE

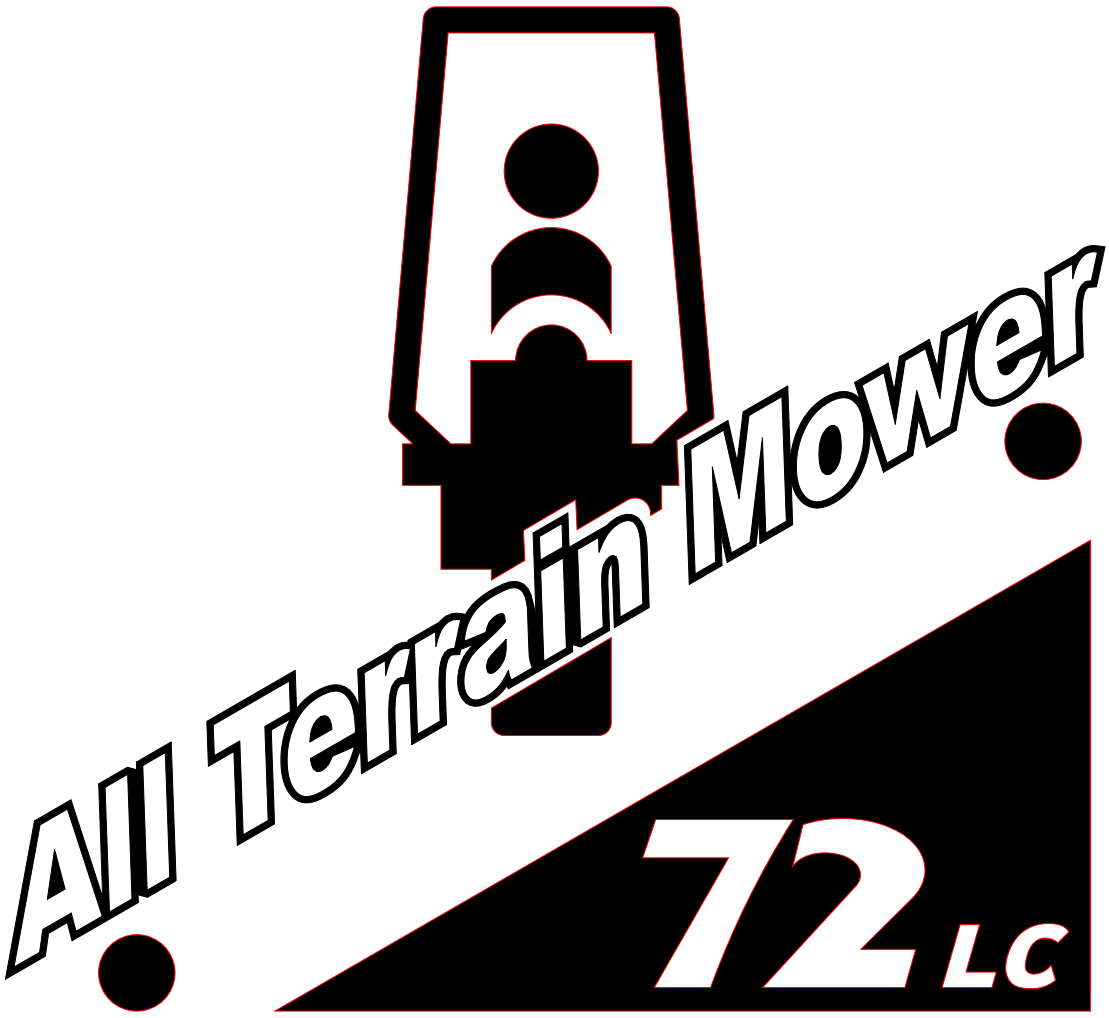
| Parts List | |
|---|---|
| PART # | DESCRIPTION |
| 202133 | DECAL, PROP 65, BREATHING DIESEL EXHAUST |
| 500079 | DECAL, SLOW MOVING VEHICLE |
| 500253 | DECAL, READ OPERATOR'S MANUAL |
| 500256 | DECAL, HIGH PRESSURE OIL |
| 500257 | DECAL, HOT MUFFLER |
| 800186 | DECAL, OPERATING ON SLOPES |
| 802053 | DECAL, 72LC STRIPE, LEFT |
| 802066 | DECAL, ATM 72LC LOGO, SILVER |
| 802067 | DECAL, TIE DOWN POINT |
| 802068 | DECAL, CUT HEIGHT |
| 902204 | DECAL, ISO 46 HYDRAULIC OIL |

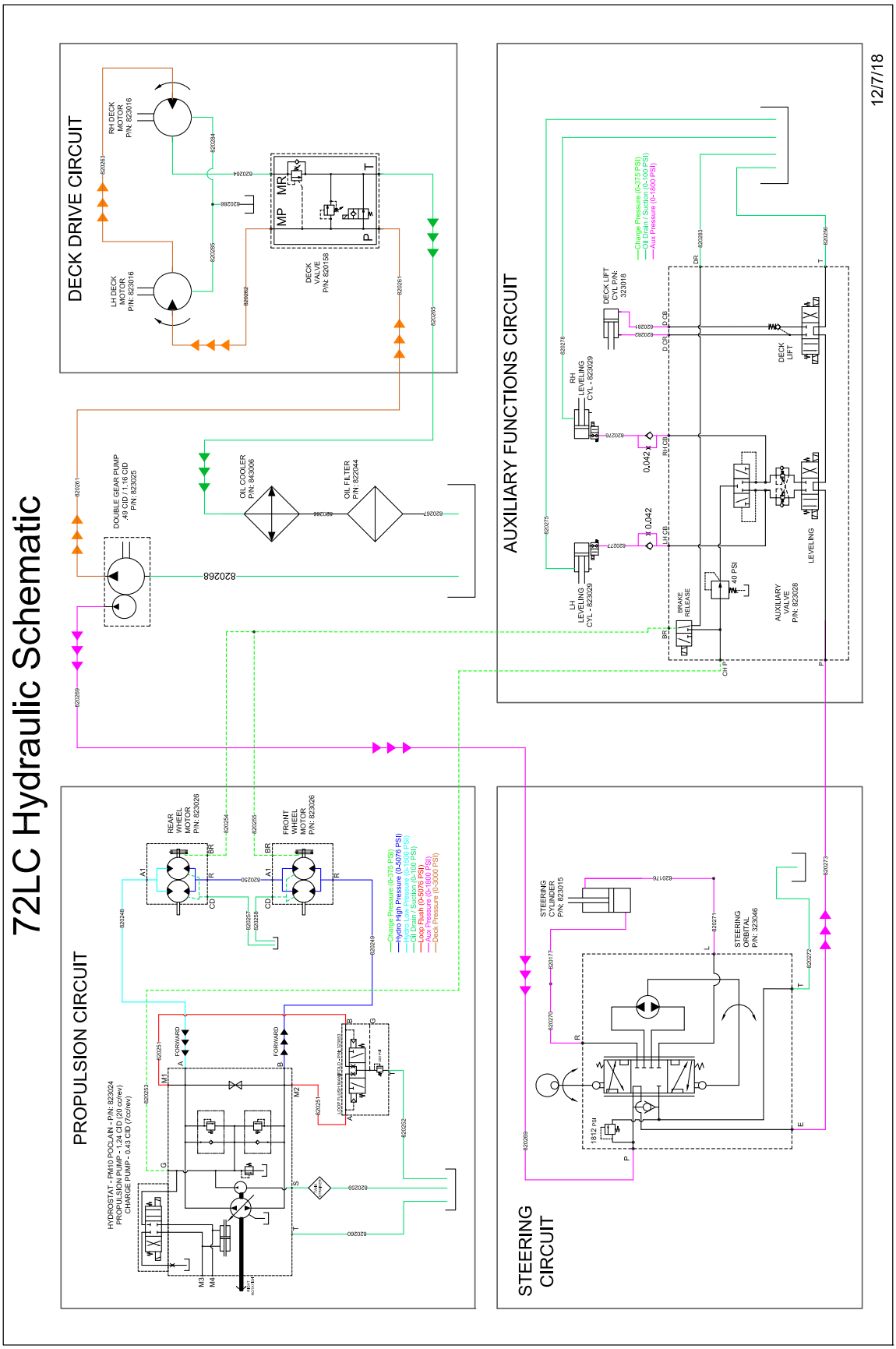



ASSEMBLY STATION #4: 875004

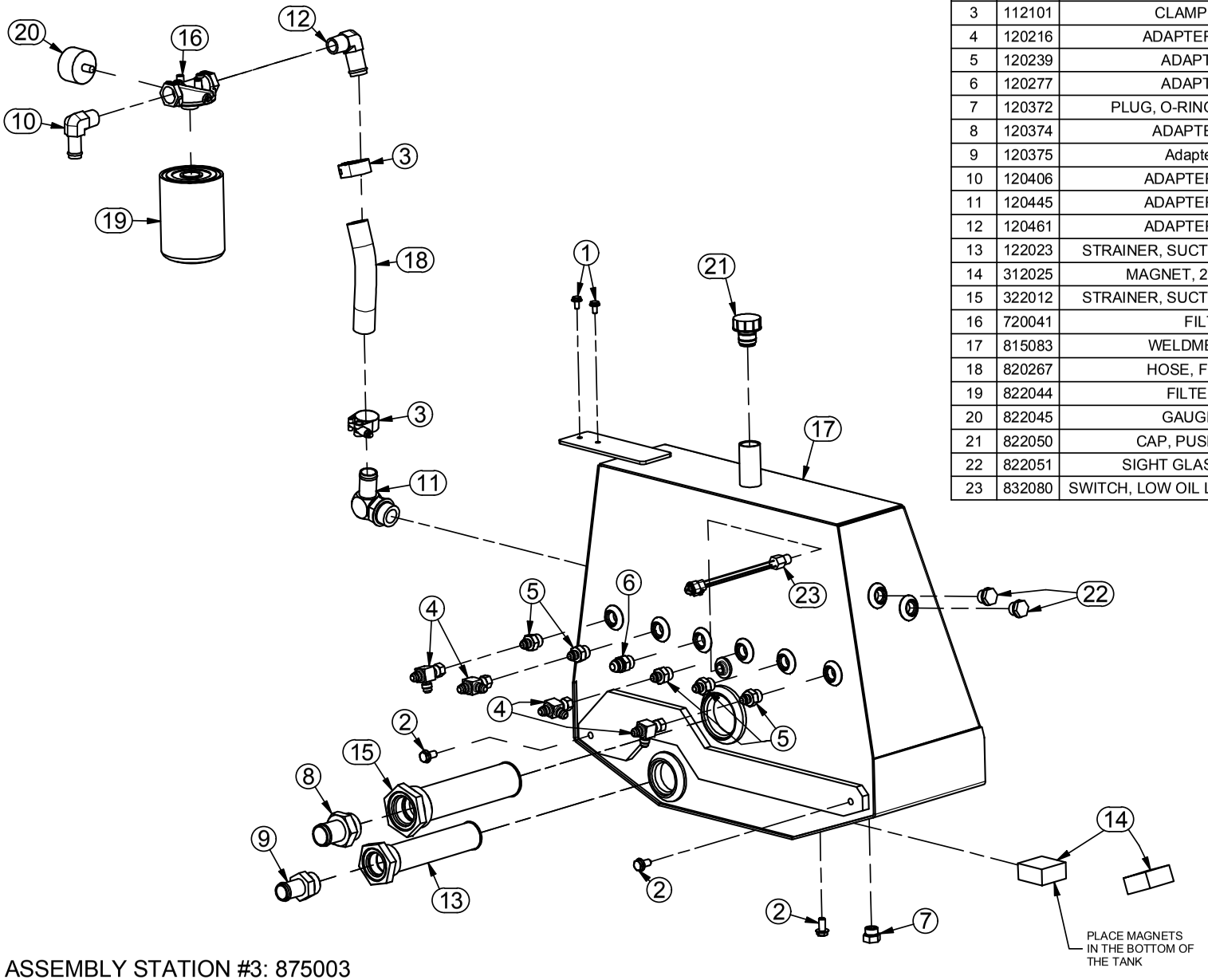
3/4/2019

# Hydraulic Systems




72LC Hydraulic Schematic
12/7/18
DECK DRIVE CIRCUIT
RH DECK MOTOR P/N: 823016
LH DECK MOTOR P/N: 823016
DECK VALVE P/N: 820158
MP
MR
P
T
DOUBLE GEAR PUMP .49 CID / 1.16 CID P/N: 823025
OIL COOLER P/N: 843006
OIL FILTER P/N: 822044
820268
AUXILIARY FUNCTIONS CIRCUIT
DECK LIFT CYL P/N: 3230016
RH LEVELING CYL - 823029
LH LEVELING CYL - 823029
DECK LIFT
LEVELING
BRAKE RELEASE
40 PSI
AUXILIARY VALVE P/N: 823028
0.042 X
Charge Pressure (0-375 PSI)
Oil Drain / Suction (0-100 PSI)
Aux Pressure (0-4500 PSI)
PROPULSION CIRCUIT
REAR WHEEL MOTOR P/N: 823026
FRONT WHEEL MOTOR P/N: 823026
HYDROSTAT - PM10 POCLAIN - P/N: 823024
PROPULSION PUMP - 1.24 CID (20 cc/rev)
CHARGE PUMP - 0.43 CID (7cc/rev)
FORWARD
Charge Pressure (0-375 PSI)
Hydro High Pressure (0-5076 PSI)
Hydro Low Pressure (0-5076 PSI)
Oil Drain / Suction (0-100 PSI)
Loop Flush (0-5076 PSI)
Aux Pressure (0-1800 PSI)
Back Pressure (0-5000 PSI)
STEERING CIRCUIT
STEERING CYLINDER P/N: 823015
STEERING ORBITAL P/N: 323046
1812 PSI

# HYDRAULIC TANK ASSEMBLY

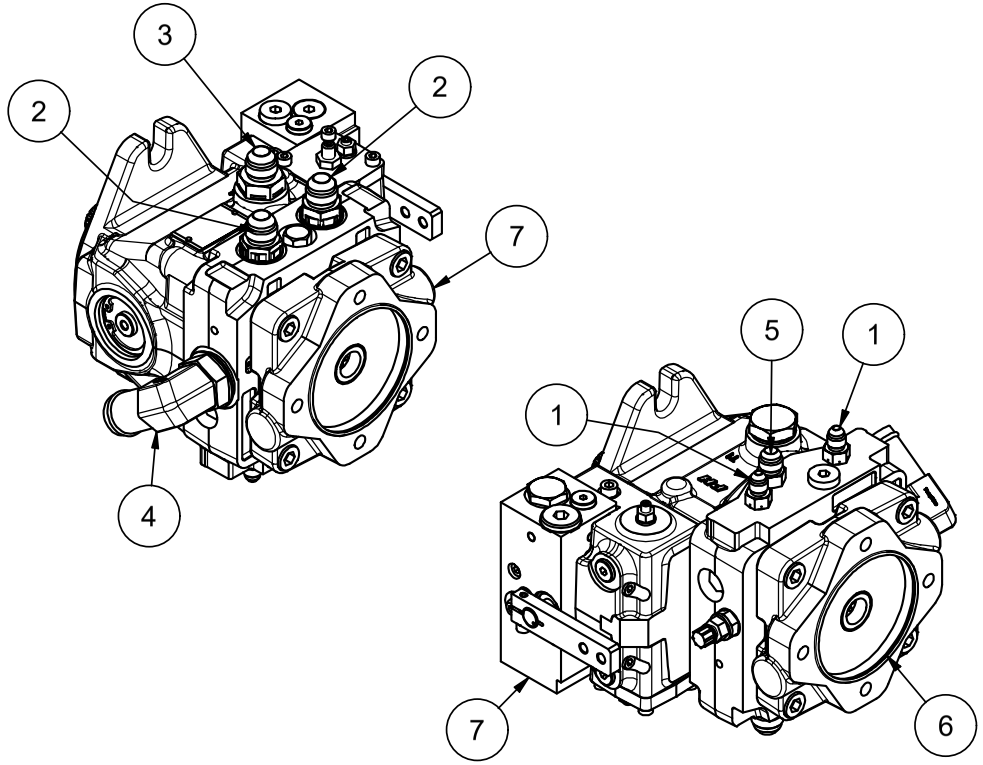



| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110434 | BOLT, 1/4-20 X 0.5, WIZ FLANGE |
| 2 | 110437 | BOLT, 3/8-16 X 0.75, WIZ FLANGE |
| 3 | 112101 | CLAMP, 1.50", T-BOLT |
| 4 | 120216 | ADAPTER, 6MJ-6FJX-6MJ |
| 5 | 120239 | ADAPTER, 6MJ-8MB |
| 6 | 120277 | ADAPTER, 8MJ-8MB |
| 7 | 120372 | PLUG, O-RING -8, EXTERNAL HEX |
| 8 | 120374 | ADAPTER, 20BH-20MB |
| 9 | 120375 | Adapter, 16bh-16mb |
| 10 | 120406 | ADAPTER, 12HB-12MP90 |
| 11 | 120445 | ADAPTER, 16BH-16MB90 |
| 12 | 120461 | ADAPTER, 16HB-12MP90 |
| 13 | 122023 | STRAINER, SUCTION, SAE-24/-16, 15 GPM |
| 14 | 312025 | MAGNET, 2"x2"x1" RECT 15LB |
| 15 | 322012 | STRAINER, SUCTION, SAE-32/-20, 25 GPM |
| 16 | 720041 | FILTER HEAD |
| 17 | 815083 | WELDMENT, HYD TANK |
| 18 | 820267 | HOSE, FILTER TO TANK |
| 19 | 822044 | FILTER, 3 MICRON |
| 20 | 822045 | GAUGE, OIL FILTER |
| 21 | 822050 | CAP, PUSH FIT BREATHER |
| 22 | 822051 | SIGHT GLASS, 8MB POLYMIDE |
| 23 | 832080 | SWITCH, LOW OIL LEVEL,1/4 MNPT, N.C. DRY |

ASSEMBLY STATION #3: 875003

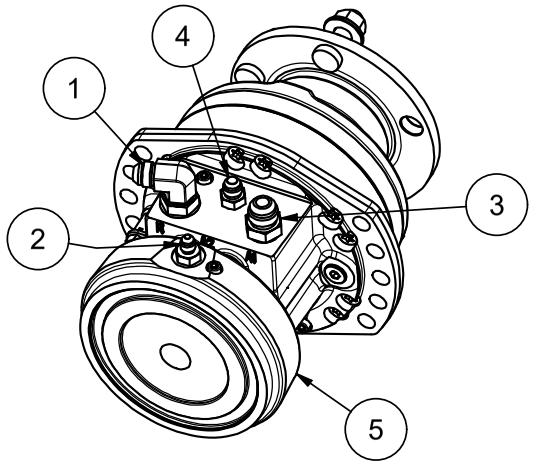
3/8/2018

# PROPULSION PUMP ASSEMBLY




| Parts List | | | |
|---|---|---|---|
| ITEM | QTY | PART # | DESCRIPTION |
| 1 | 2 | 120233 | ADAPTER, 4MJ-4MB |
| 2 | 2 | 120277 | ADAPTER, 8MJ-8MB |
| 3 | 1 | 120446 | ADAPTER, 8MJ-10MB |
| 4 | 1 | 120491 | ADAPTER, 16BH-12MB90 |
| 5 | 1 | 120665 | ADAPTER, 6MJ-4MB |
| 6 | 1 | 820247 | O'RING 2-042 1/16" BUNA |
| 7 | 1 | 823024 | PUMP, PM10 PROP 1.24 CI/.43 CI |

# WHEEL MOTOR ASSEMBLY




| Parts List | | | |
|---|---|---|---|
| ITEM | QTY | PART # | DESCRIPTION |
| 1 | 1 | 120245 | ADAPTER, 8MJ-10MB90 |
| 2 | 1 | 120249 | ADAPTER, 4MJ-6MB |
| 3 | 1 | 120251 | ADAPTER, 10MJ-10MB |
| 4 | 1 | 120319 | ADAPTER, 6MJ-6MB |
| 5 | 1 | 823026 | MOTOR, WHEEL 30.5 CI |

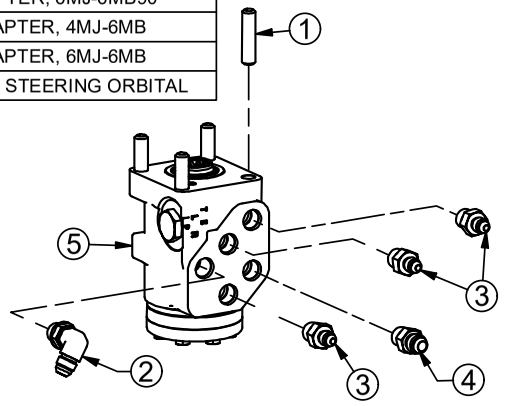
ASSEMBLY STATION #3: 875003

6/25/2021

# VALVE ASSEMBLIES

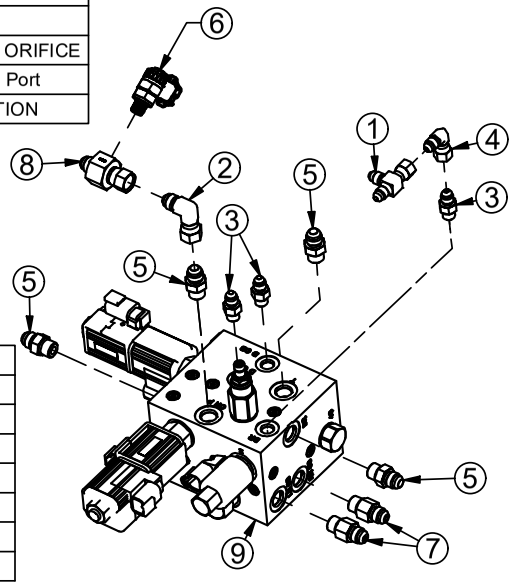
## STEERING ORBITAL ASSEMBLY

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 111055 | STUD, M10 X 1.5 X 42 GRADE 8.8 |
| 2 | 120222 | ADAPTER, 6MJ-6MB90 |
| 3 | 120249 | ADAPTER, 4MJ-6MB |
| 4 | 120319 | ADAPTER, 6MJ-6MB |
| 5 | 323046 | MOTOR, STEERING ORBITAL |




## AUXIALLARY VALVE ASSEMBLY

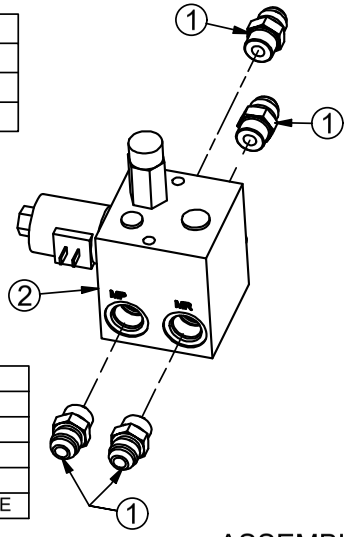
| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 120215 | ADAPTER, 4MJ-4FJX-4MJ |
| 2 | 120218 | ADAPTER, 6MJ-6FJX90 |
| 3 | 120233 | ADAPTER, 4MJ-4MB |
| 4 | 120266 | ADAPTER, 4MJ-4FJX90 |
| 5 | 120319 | ADAPTER, 6MJ-6MB |
| 6 | 120705 | Test Port, M16, 4MB |
| 7 | 120724 | VALVE, CHECK, 6MB-6MJ, .042 ORIFICE |
| 8 | 120754 | Adapter, 6fjx-6mj, -4fb Gage Port |
| 9 | 823028 | VALVE, AUXILIARY FUNCTION |




| 823028 - Service Parts | |
|---|---|
| PART # | DESCRIPTION |
| 322053 | COIL, 12VDC DEUTSCH, S SERIES |
| 720189 | VALVE, 3-POSITION 4-WAY SOLENOID |
| 822052 | VALVE, 2-POSITION 3-WAY SOLENOID |
| 822053 | VALVE, PRESSURE REDUCING |
| 822054 | VALVE, SHUTTLE |
| 822055 | COIL, 12VDC DEUTSCH |

## DECK VALVE ASSEMBLY

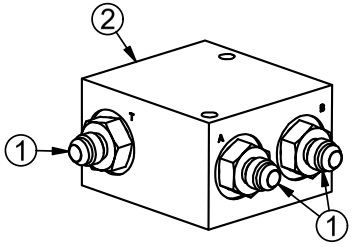
| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 120251 | ADAPTER, 10MJ-10MB |
| 2 | 820158 | DECK VALVE |




| 820158 - SERVICE PARTS | |
|---|---|
| PART | DESCRIPTION |
| 820229 | COIL, 12VDC DEUTSCH "ER" |
| 820230 | VALVE, COUNTER BALANCE |
| 820231 | RELIEF, 3000 PSI PRESSURE |
| 820232 | VALVE, N.O. SOLENOID CARTRIDGE |

## LOOP FLUSH VALVE ASSEMBLY

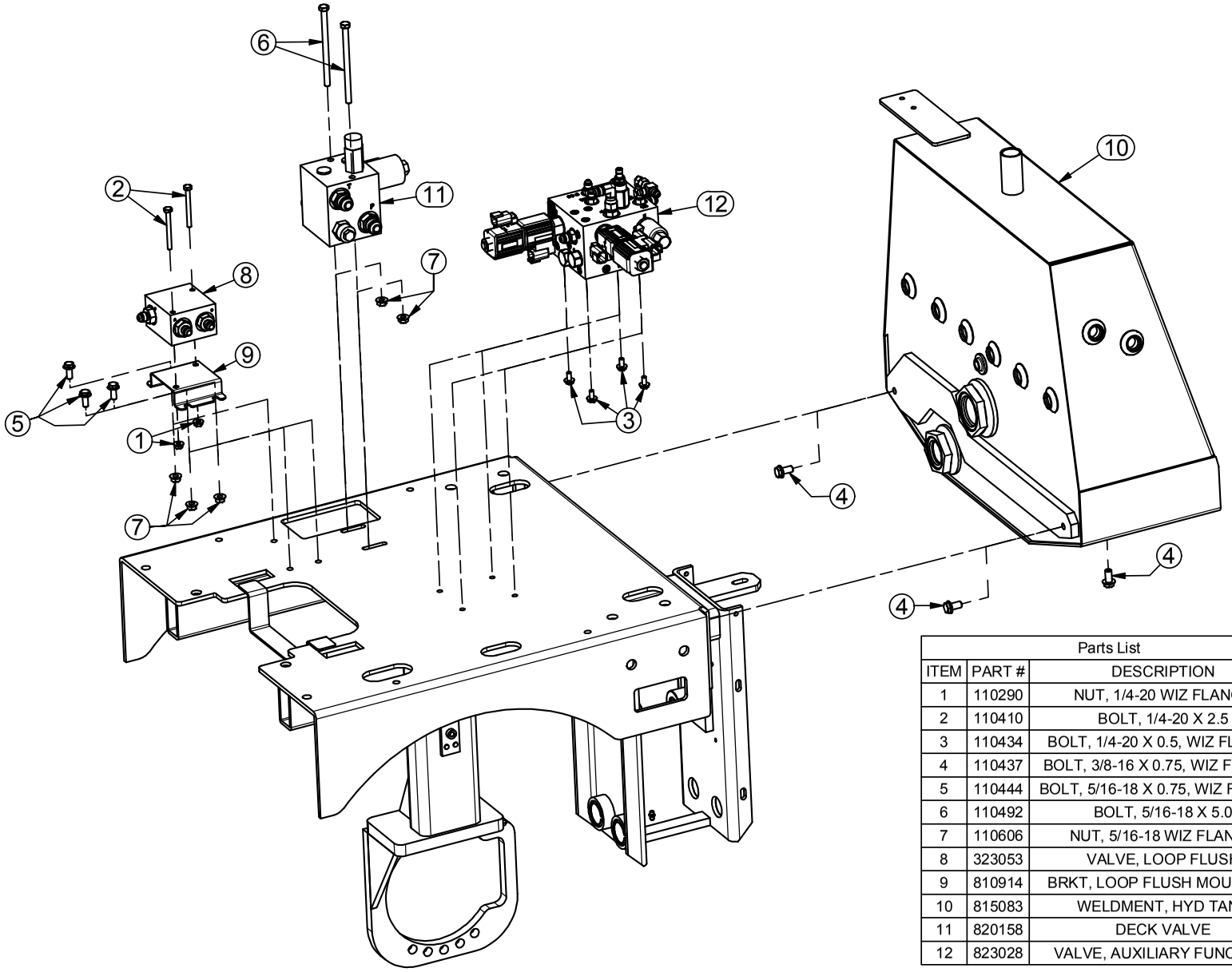
| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 120239 | ADAPTER, 6MJ-8MB |
| 2 | 323053 | VALVE, LOOP FLUSH |




ASSEMBLY STATION #3: 875003

6/25/2021

# VALVE & TANK INSTALLATION



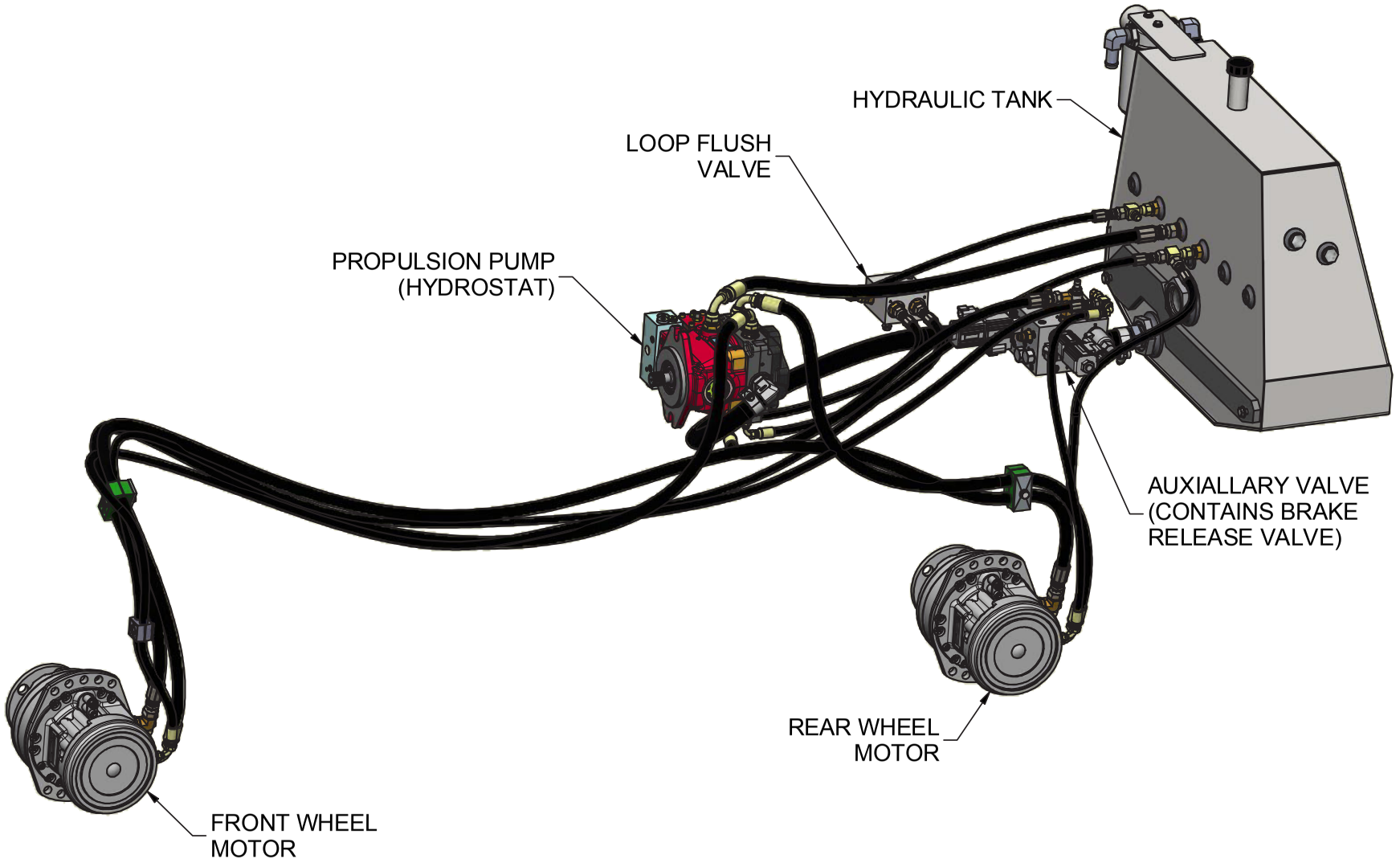

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110290 | NUT, 1/4-20 WIZ FLANGE |
| 2 | 110410 | BOLT, 1/4-20 X 2.5 |
| 3 | 110434 | BOLT, 1/4-20 X 0.5, WIZ FLANGE |
| 4 | 110437 | BOLT, 3/8-16 X 0.75, WIZ FLANGE |
| 5 | 110444 | BOLT, 5/16-18 X 0.75, WIZ FLANGE |
| 6 | 110492 | BOLT, 5/16-18 X 5.0 |
| 7 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 8 | 323053 | VALVE, LOOP FLUSH |
| 9 | 810914 | BRKT, LOOP FLUSH MOUNTING |
| 10 | 815083 | WELDMENT, HYD TANK |
| 11 | 820158 | DECK VALVE |
| 12 | 823028 | VALVE, AUXILIARY FUNCTION |

ASSEMBLY STATION #3: 875003

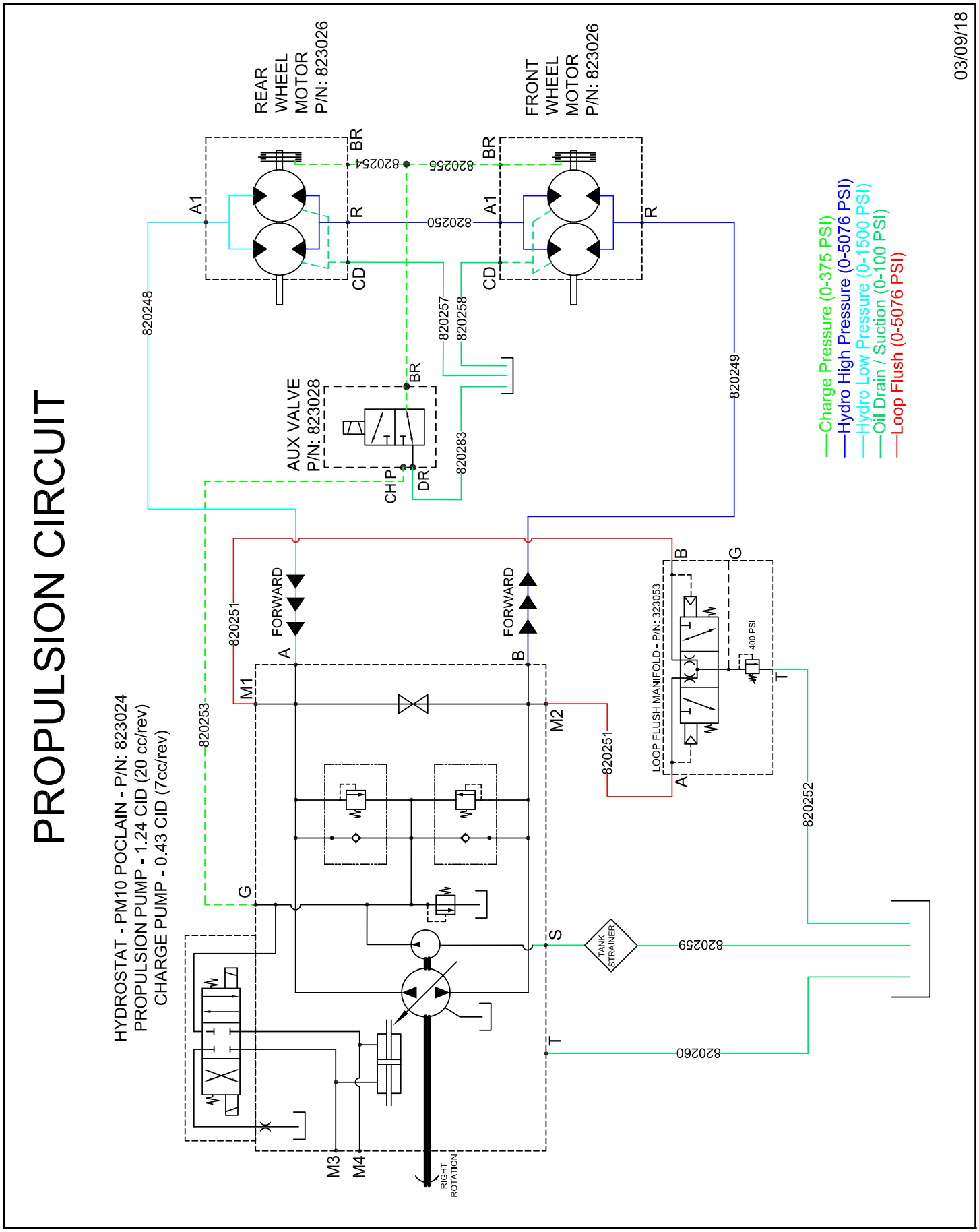
4/26/2019

# PROPULSION SYSTEM

(GROUND DRIVE)

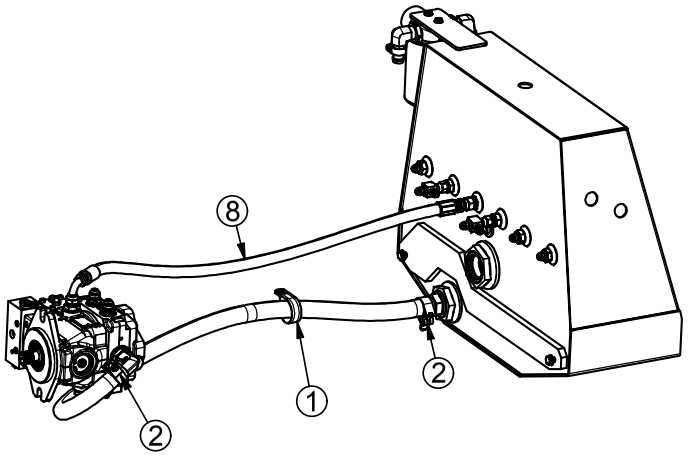



2/26/2019

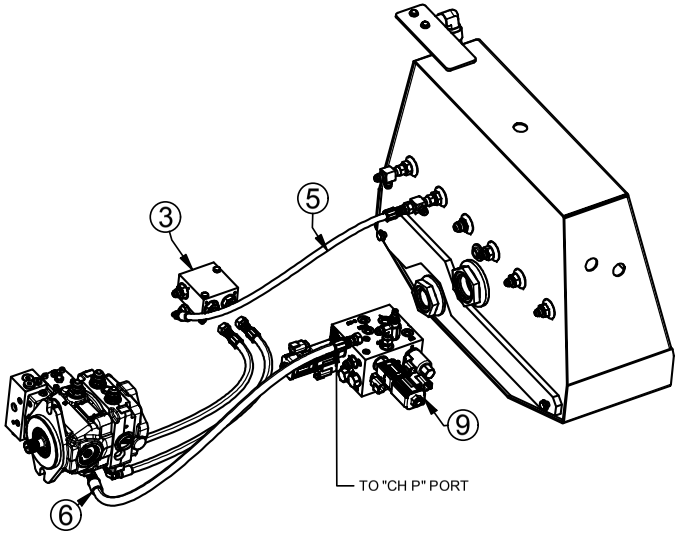

PROPULSION CIRCUIT
HYDROSTAT - PM10 POCLAIN - P/N: 823024
PROPULSION PUMP - 1.24 CID (20 cc/rev)
CHARGE PUMP - 0.43 CID (7cc/rev)
REAR WHEEL MOTOR P/N: 823026
FRONT WHEEL MOTOR P/N: 823026
AUX VALVE P/N: 823028
LOOP FLUSH MANIFOLD - P/N: 323053
400 PSI
FORWARD
TANK STRAINER
RIGHT ROTATION
820248
820249
820250
820251
820252
820253
820254
820255
820257
820258
820259
820260
820283
Charge Pressure (0-375 PSI)
Hydro High Pressure (0-5076 PSI)
Hydro Low Pressure (0-1500 PSI)
Oil Drain / Suction (0-100 PSI)
Loop Flush (0-5076 PSI)
03/09/18

# PROPULSION PLUMBING

## PUMP SUCTION & DRAIN PLUMBING

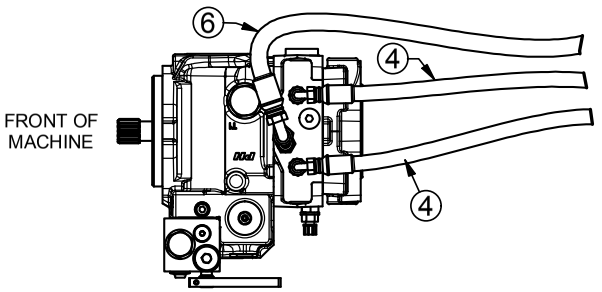



## LOOP FLUSH & BRAKE RELEASE VALVE PLUMBING




| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 100499 | CLAMP, ADEL 1.75ID X .406HOLE |
| 2 | 112101 | CLAMP, 1.50", T-BOLT |
| 3 | 323053 | VALVE, LOOP FLUSH |
| 4 | 820251 | HOSE ASSY, LOOP FLUSH PRESS |
| 5 | 820252 | HOSE ASSY, LOOP FLUSH TANK |
| 6 | 820253 | HOSE ASSY, CHARGE PRESS |
| 7 | 820259 | HOSE, PROPULSION SUCTION |
| 8 | 820260 | HOSE ASSY, PROP PUMP TO TANK |
| 9 | 823028 | VALVE, AUXILIARY FUNCTION |

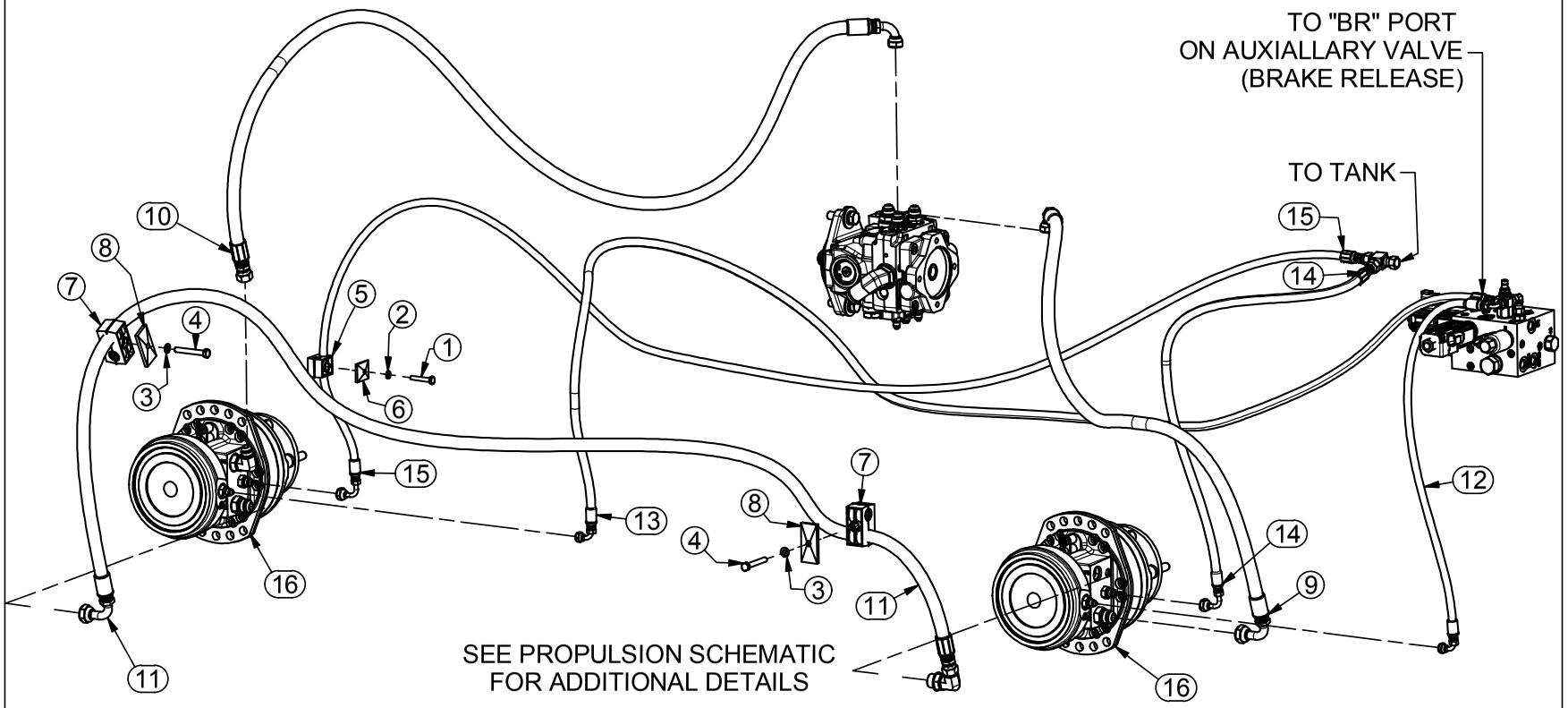
## BOTTOM VIEW OF PUMP




ASSEMBLY STATION #3: 875003

4/29/2019

# PROPULSION PLUMBING - WHEEL MOTORS

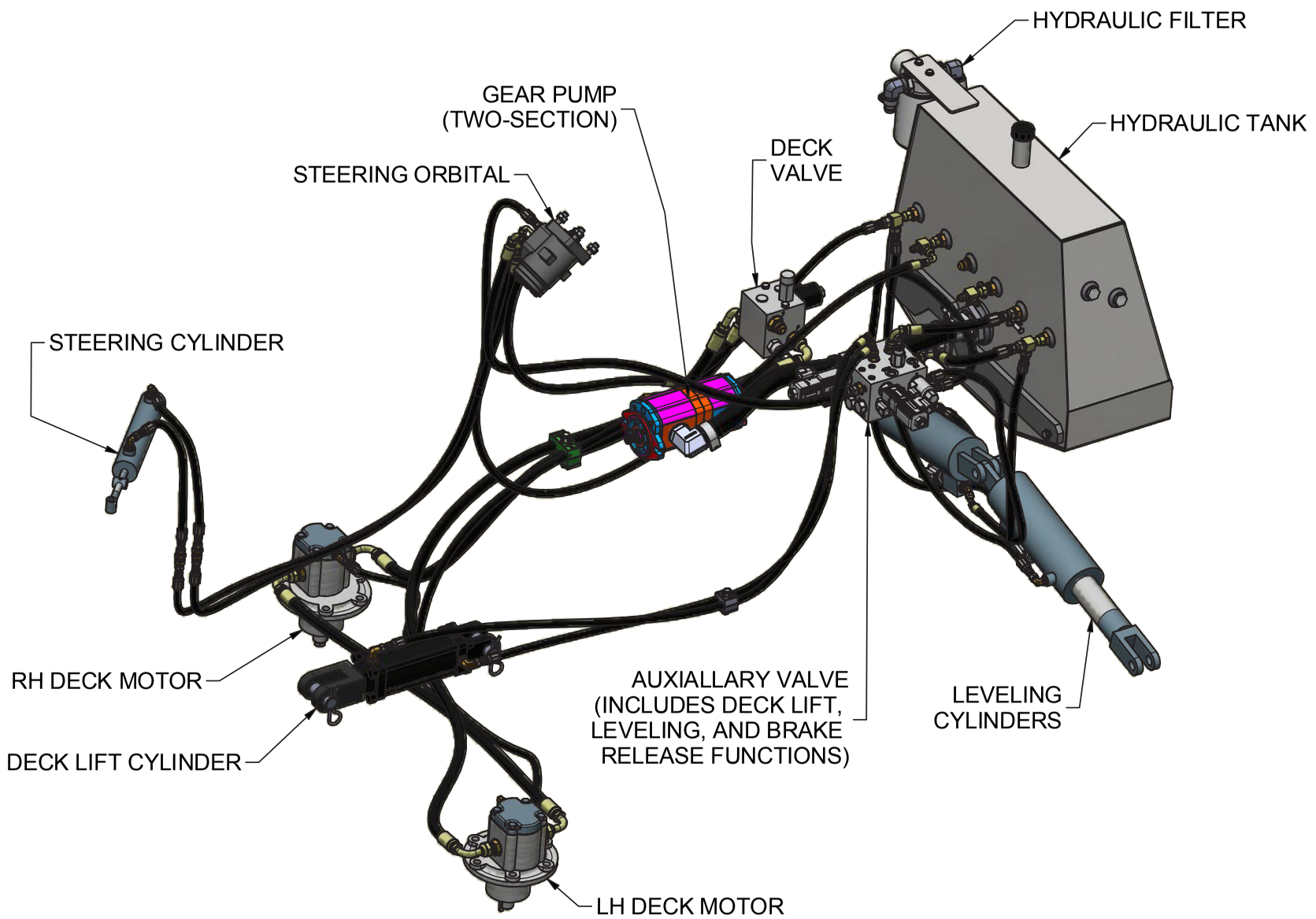



| Parts List | | | Parts List | | |
|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 110474 | BOLT, 1/4-20 X 1-1/2 | 9 | 820248 | HOSE ASSY, PROP PRESS A |
| 2 | 110667 | WASHER, 1/4" LOCK | 10 | 820249 | HOSE ASSY, PROP PRESS B |
| 3 | 110674 | WASHER, 5/16" LOCK | 11 | 820250 | HOSE ASSY, PROP PRESS SERIAL |
| 4 | 111151 | BOLT, 5/16-18 X 2-1/4 | 12 | 820254 | HOSE ASSY, REAR BRAKE |
| 5 | 522104 | DOUBLE HOSE CLAMP | 13 | 820255 | HOSE ASSY, FRONT BRAKE |
| 6 | 522105 | DOUBLE COVERPLATE | 14 | 820257 | HOSE ASSY, REAR MTR CD |
| 7 | 820097 | CLAMP BODY | 15 | 820258 | HOSE ASSY, FRONT MTR CD |
| 8 | 820098 | COVER PLATE | 16 | 823026 | MOTOR, WHEEL 30.5 CI |

ASSEMBLY STATION #3: 875003

4/29/2019

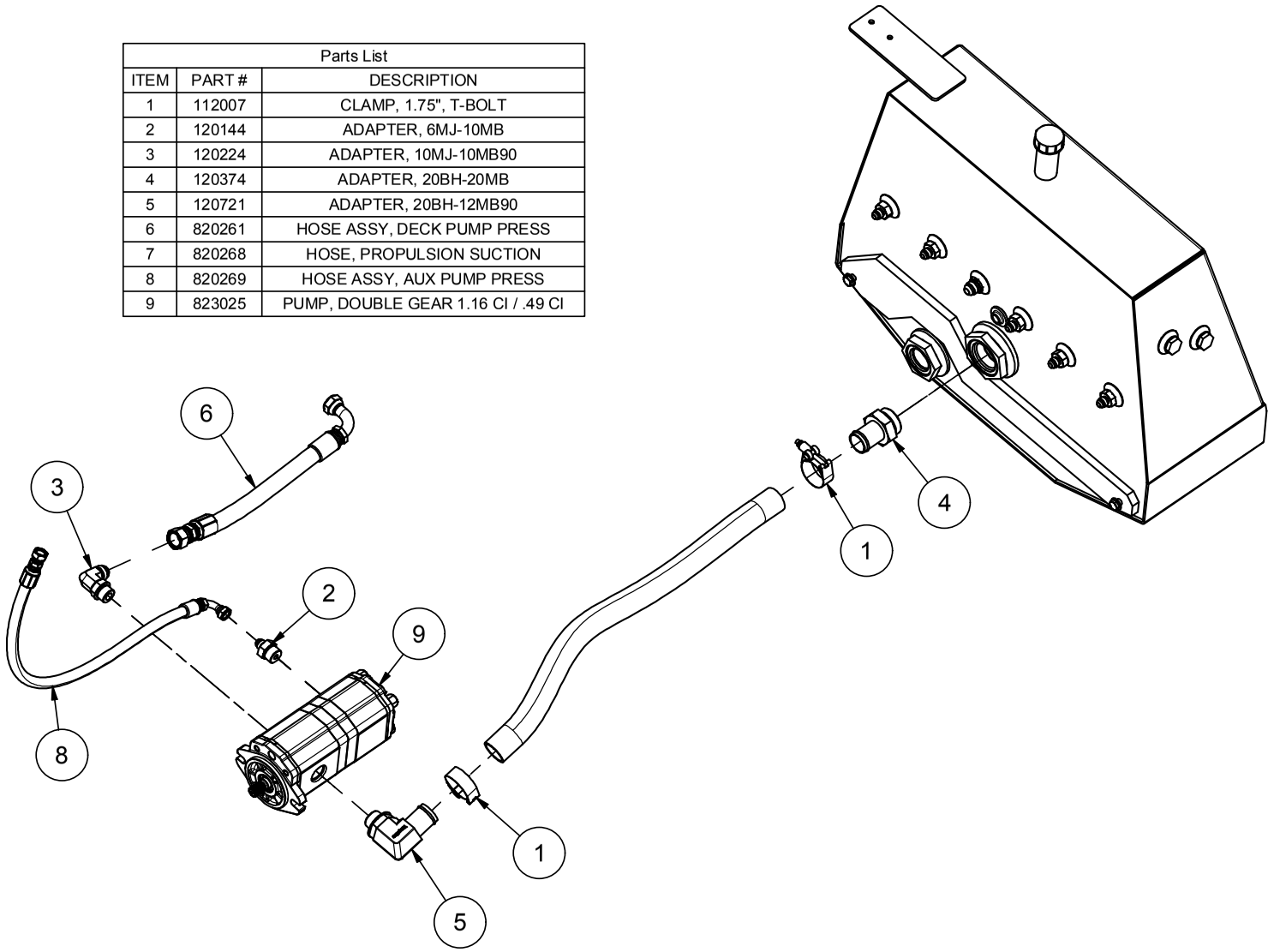
# MACHINE HYDRAULIC SYSTEM




2/28/2019

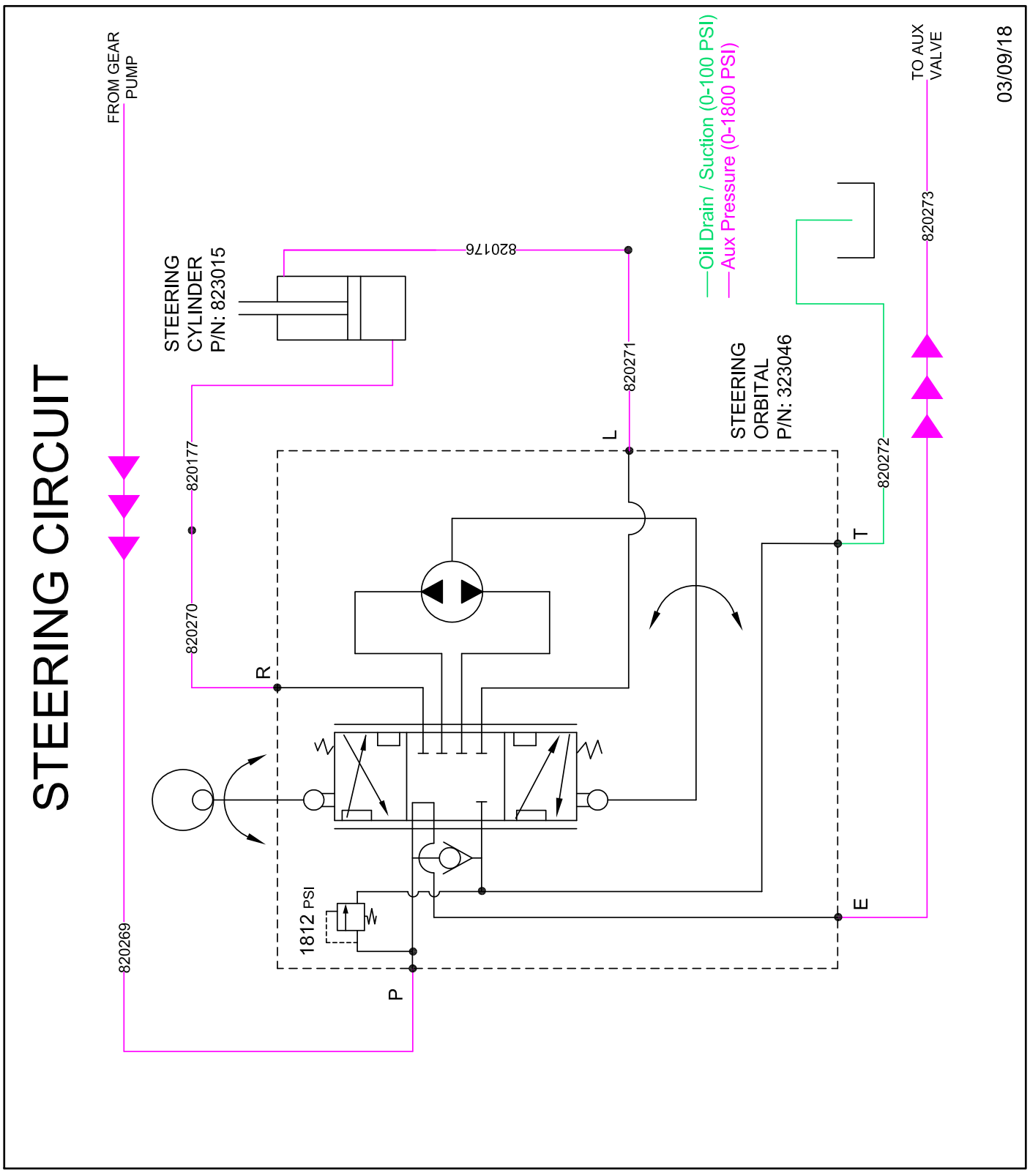
# GEAR PUMP ASSEMBLY & PLUMBING

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 112007 | CLAMP, 1.75", T-BOLT |
| 2 | 120144 | ADAPTER, 6MJ-10MB |
| 3 | 120224 | ADAPTER, 10MJ-10MB90 |
| 4 | 120374 | ADAPTER, 20BH-20MB |
| 5 | 120721 | ADAPTER, 20BH-12MB90 |
| 6 | 820261 | HOSE ASSY, DECK PUMP PRESS |
| 7 | 820268 | HOSE, PROPULSION SUCTION |
| 8 | 820269 | HOSE ASSY, AUX PUMP PRESS |
| 9 | 823025 | PUMP, DOUBLE GEAR 1.16 CI / .49 CI |

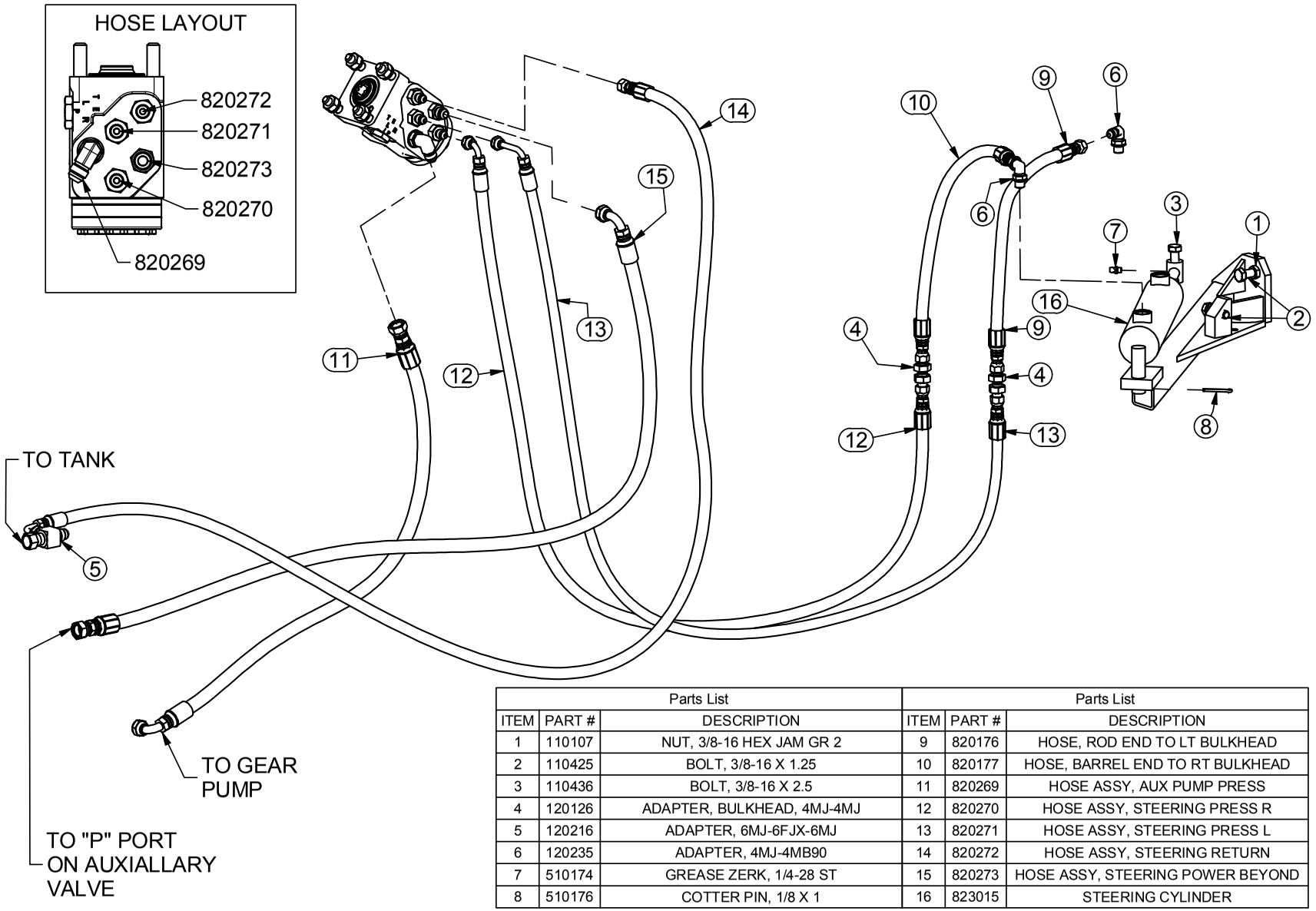



ASSEMBLY STATION #3: 875003

2/28/2019


STEERING CIRCUIT
FROM GEAR PUMP
STEERING CYLINDER P/N: 823015
820176
820271
820177
820270
820269
Oil Drain / Suction (0-100 PSI)
Aux Pressure (0-1800 PSI)
STEERING ORBITAL P/N: 323046
820272
820273
TO AUX VALVE
03/09/18
L
R
T
E
P
1812 PSI

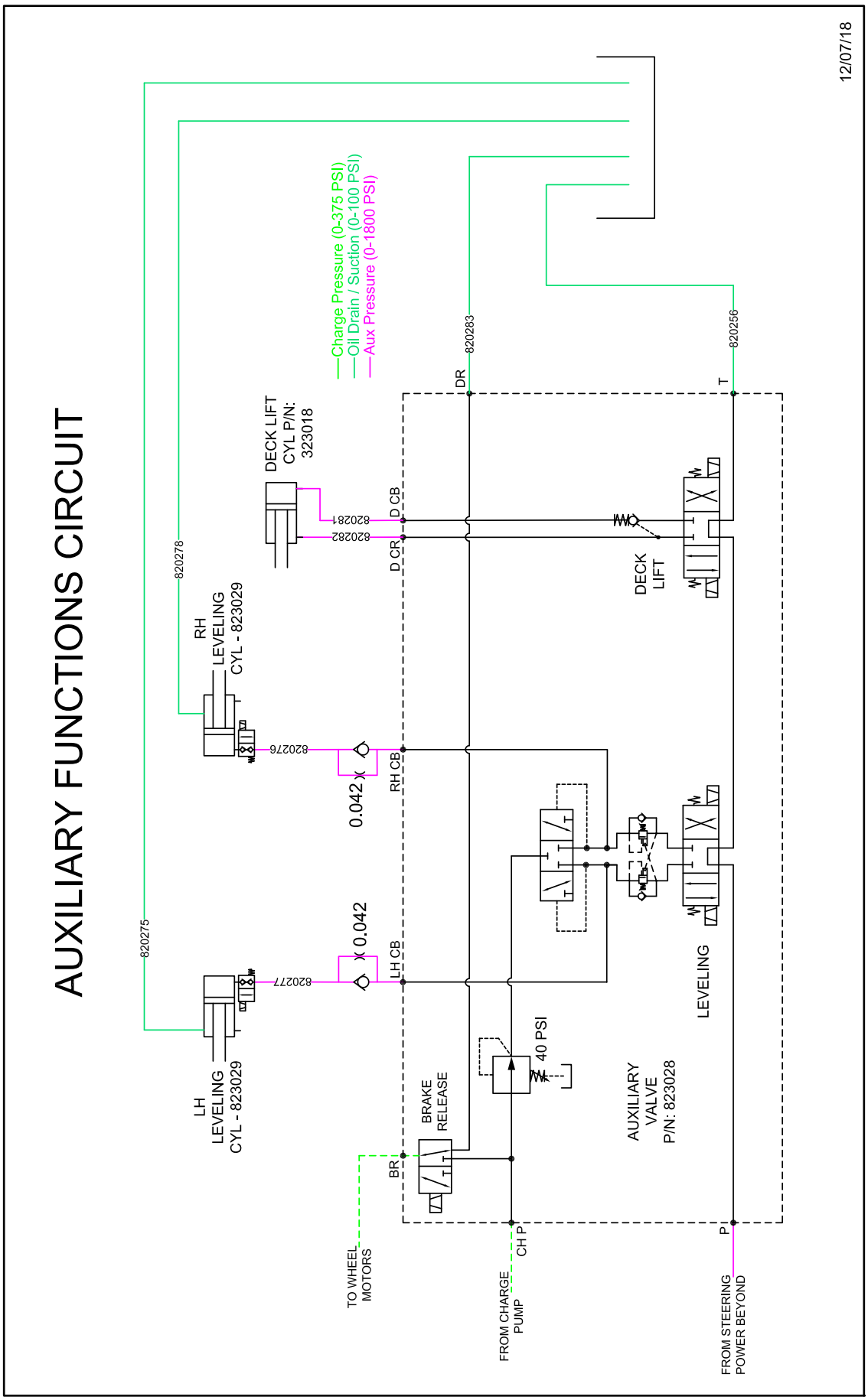
# STEERING PLUMBING




| Parts List | | | Parts List | | |
|---|---|---|---|---|---|
| ITEM | PART # | DESCRIPTION | ITEM | PART # | DESCRIPTION |
| 1 | 110107 | NUT, 3/8-16 HEX JAM GR 2 | 9 | 820176 | HOSE, ROD END TO LT BULKHEAD |
| 2 | 110425 | BOLT, 3/8-16 X 1.25 | 10 | 820177 | HOSE, BARREL END TO RT BULKHEAD |
| 3 | 110436 | BOLT, 3/8-16 X 2.5 | 11 | 820269 | HOSE ASSY, AUX PUMP PRESS |
| 4 | 120126 | ADAPTER, BULKHEAD, 4MJ-4MJ | 12 | 820270 | HOSE ASSY, STEERING PRESS R |
| 5 | 120216 | ADAPTER, 6MJ-6FJX-6MJ | 13 | 820271 | HOSE ASSY, STEERING PRESS L |
| 6 | 120235 | ADAPTER, 4MJ-4MB90 | 14 | 820272 | HOSE ASSY, STEERING RETURN |
| 7 | 510174 | GREASE ZERK, 1/4-28 ST | 15 | 820273 | HOSE ASSY, STEERING POWER BEYOND |
| 8 | 510176 | COTTER PIN, 1/8 X 1 | 16 | 823015 | STEERING CYLINDER |

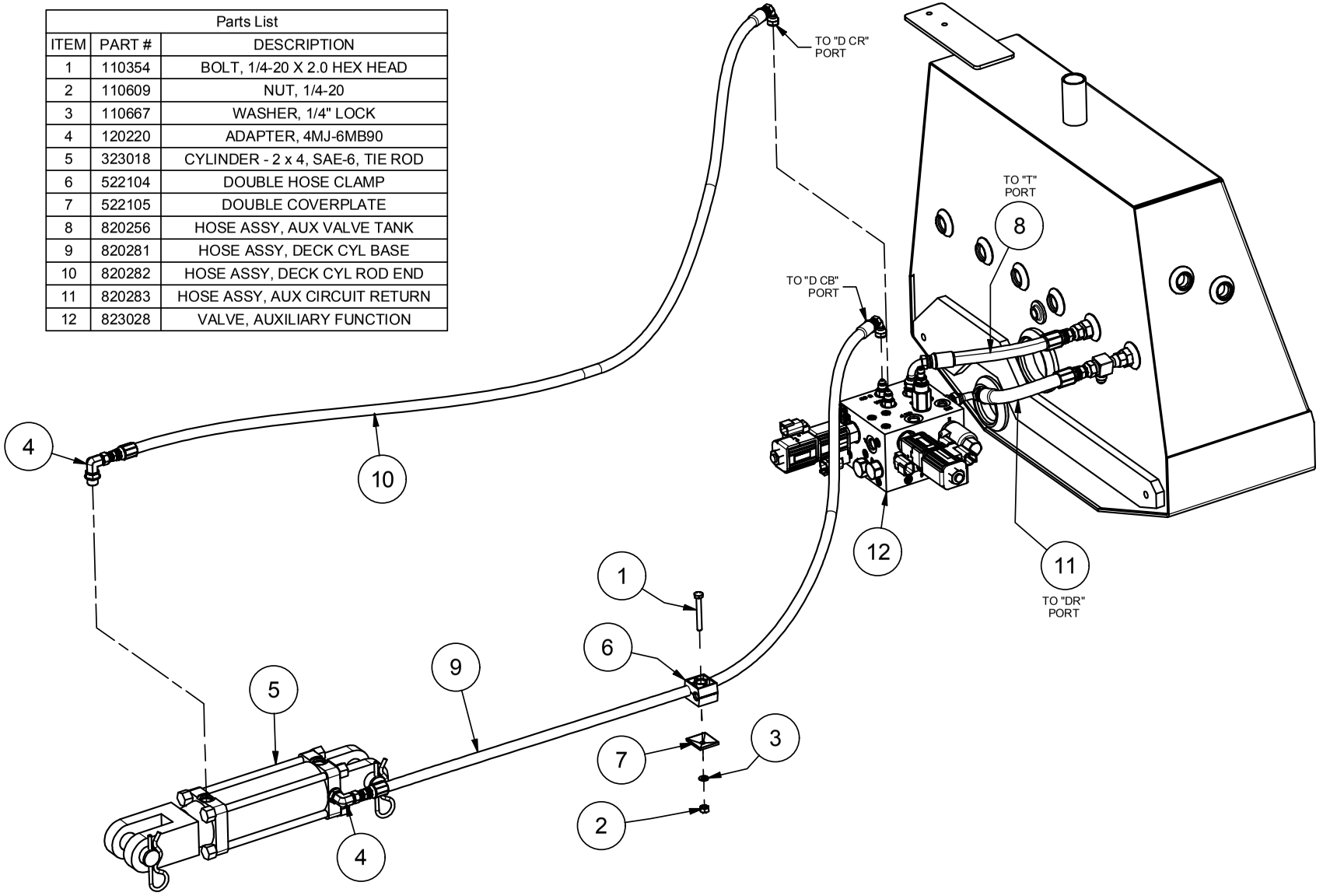
ASSEMBLY STATION #3: 875003

4/29/2019


AUXILIARY FUNCTIONS CIRCUIT
12/07/18
—Charge Pressure (0-375 PSI)
—Oil Drain / Suction (0-100 PSI)
—Aux Pressure (0-1800 PSI)
820283
DR
820256
T
DECK LIFT CYL P/N: 323018
820281
820282
D CB
D CR
DECK LIFT
820278
RH LEVELING CYL - 823029
820276
0.042
RH CB
820275
820277
0.042
LH CB
LH LEVELING CYL - 823029
LEVELING
40 PSI
BRAKE RELEASE
BR
AUXILIARY VALVE P/N: 823028
TO WHEEL MOTORS
FROM CHARGE PUMP
CH P
P
FROM STEERING POWER BEYOND

# DECK LIFT PLUMBING

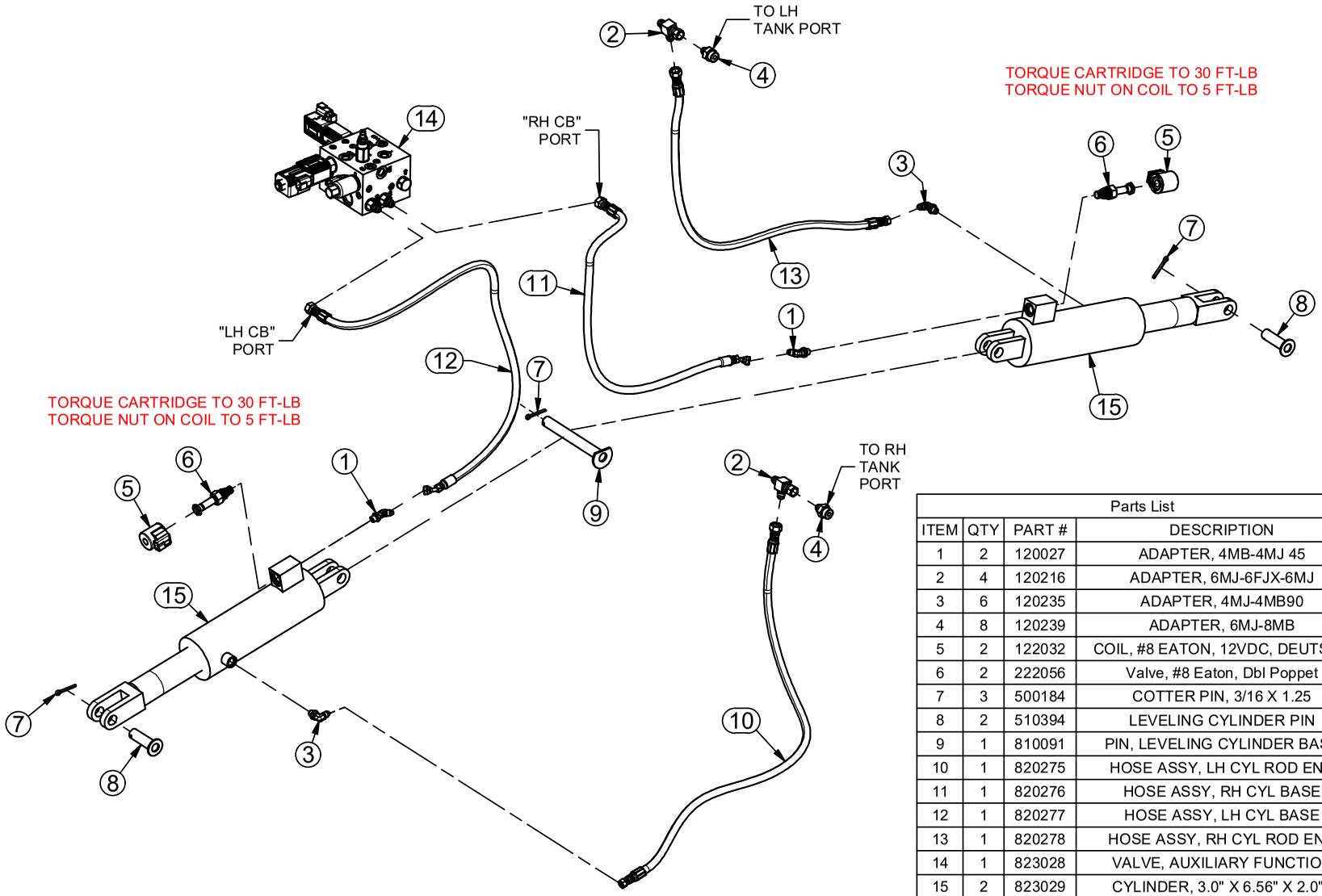
| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 110354 | BOLT, 1/4-20 X 2.0 HEX HEAD |
| 2 | 110609 | NUT, 1/4-20 |
| 3 | 110667 | WASHER, 1/4" LOCK |
| 4 | 120220 | ADAPTER, 4MJ-6MB90 |
| 5 | 323018 | CYLINDER - 2 x 4, SAE-6, TIE ROD |
| 6 | 522104 | DOUBLE HOSE CLAMP |
| 7 | 522105 | DOUBLE COVERPLATE |
| 8 | 820256 | HOSE ASSY, AUX VALVE TANK |
| 9 | 820281 | HOSE ASSY, DECK CYL BASE |
| 10 | 820282 | HOSE ASSY, DECK CYL ROD END |
| 11 | 820283 | HOSE ASSY, AUX CIRCUIT RETURN |
| 12 | 823028 | VALVE, AUXILIARY FUNCTION |




ASSEMBLY STATION #2 & #3: 875002 & 875003

3/9/2018

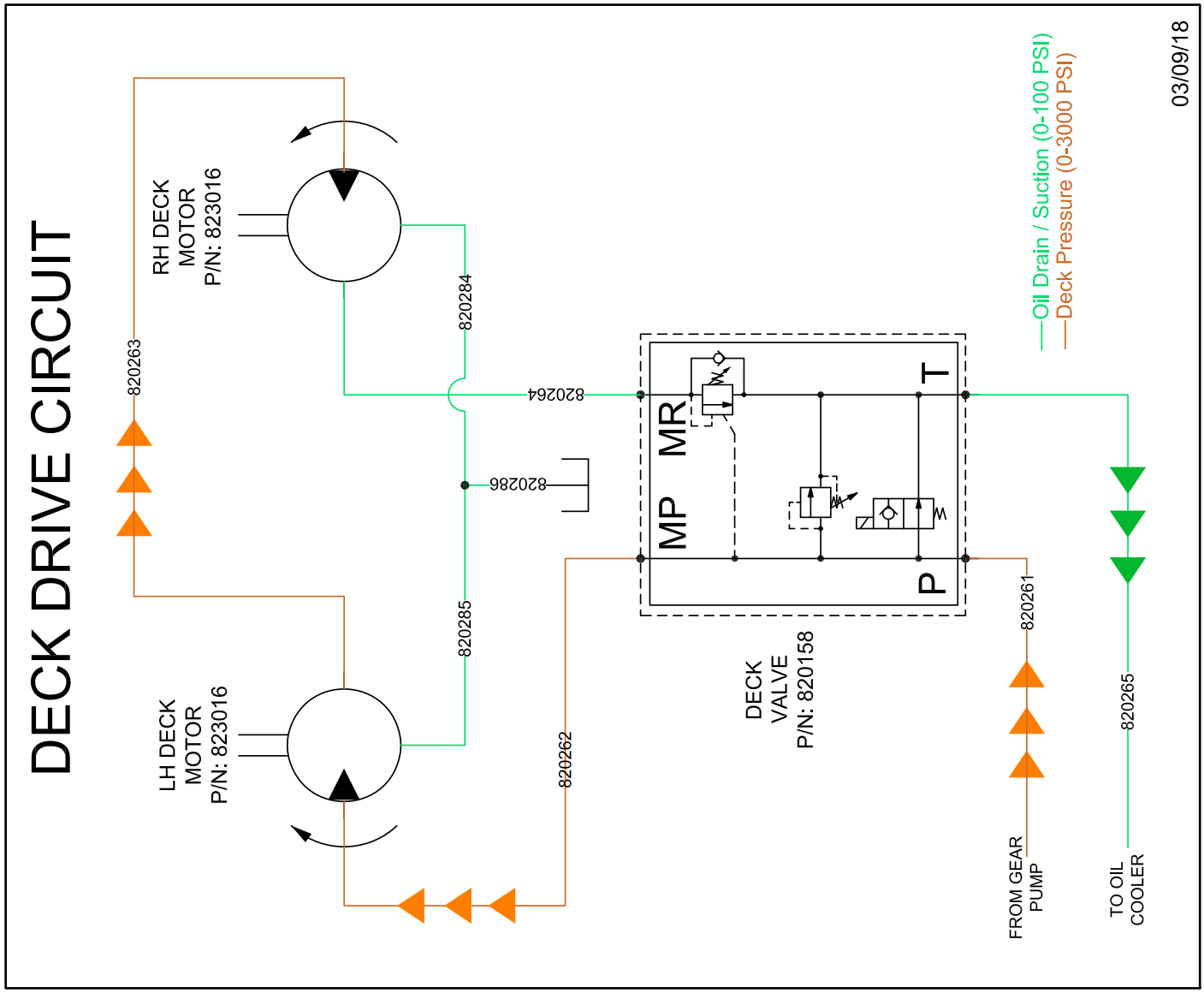
# LEVELING PLUMBING



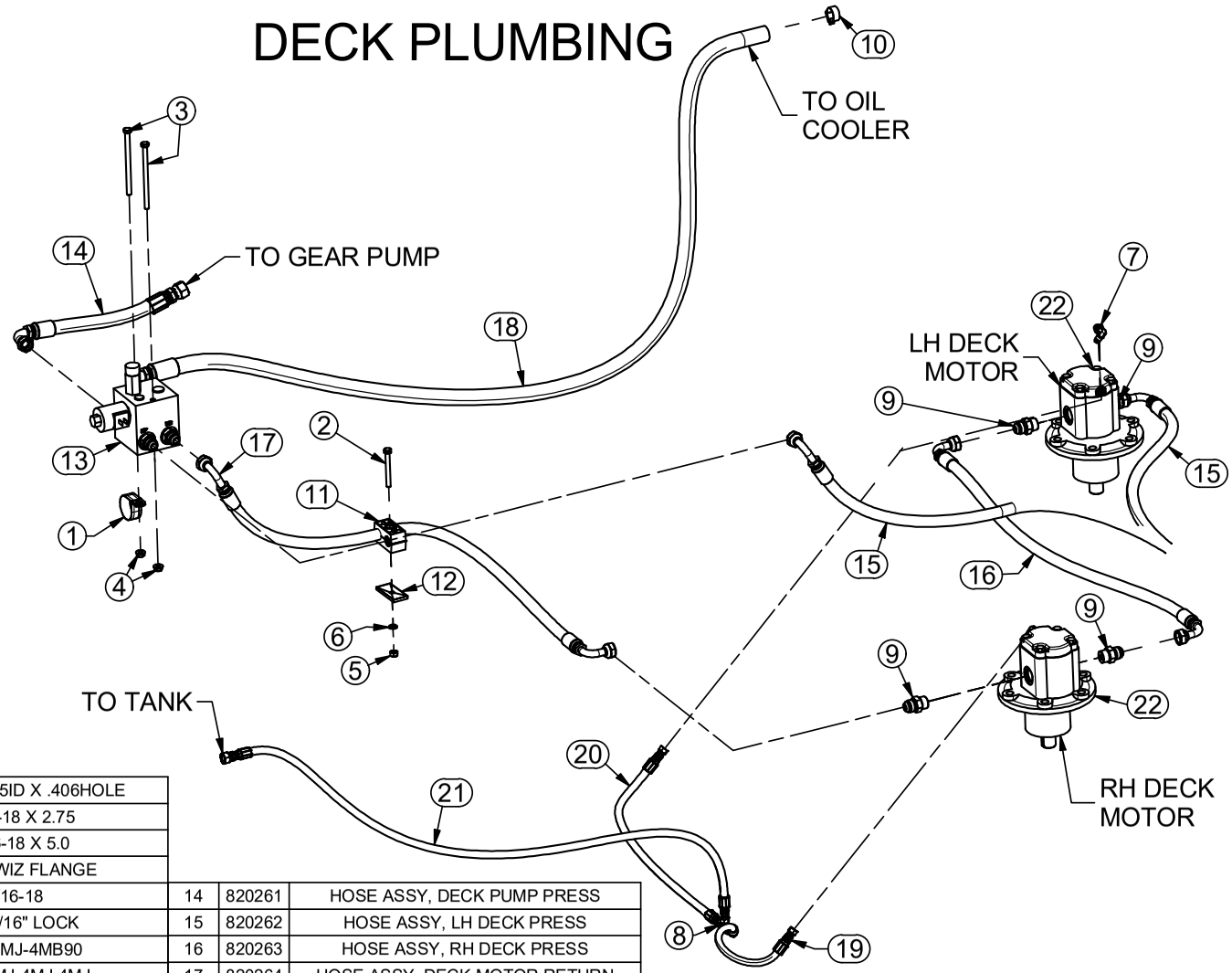

| Parts List | | | |
|---|---|---|---|
| ITEM | QTY | PART # | DESCRIPTION |
| 1 | 2 | 120027 | ADAPTER, 4MB-4MJ 45 |
| 2 | 4 | 120216 | ADAPTER, 6MJ-6FJX-6MJ |
| 3 | 6 | 120235 | ADAPTER, 4MJ-4MB90 |
| 4 | 8 | 120239 | ADAPTER, 6MJ-8MB |
| 5 | 2 | 122032 | COIL, #8 EATON, 12VDC, DEUTSCH |
| 6 | 2 | 222056 | Valve, #8 Eaton, Dbl Poppet |
| 7 | 3 | 500184 | COTTER PIN, 3/16 X 1.25 |
| 8 | 2 | 510394 | LEVELING CYLINDER PIN |
| 9 | 1 | 810091 | PIN, LEVELING CYLINDER BASE |
| 10 | 1 | 820275 | HOSE ASSY, LH CYL ROD END |
| 11 | 1 | 820276 | HOSE ASSY, RH CYL BASE |
| 12 | 1 | 820277 | HOSE ASSY, LH CYL BASE |
| 13 | 1 | 820278 | HOSE ASSY, RH CYL ROD END |
| 14 | 1 | 823028 | VALVE, AUXILIARY FUNCTION |
| 15 | 2 | 823029 | CYLINDER, 3.0" X 6.56" X 2.0", LEVELING |

ASSEMBLY STATION #3: 875003

7/27/2020


DECK DRIVE CIRCUIT
RH DECK MOTOR P/N: 823016
LH DECK MOTOR P/N: 823016
820263
820284
820264
820286
820285
820262
DECK VALVE P/N: 820158
MP
MR
T
P
820261
820265
FROM GEAR PUMP
TO OIL COOLER
Oil Drain / Suction (0-100 PSI)
Deck Pressure (0-3000 PSI)
03/09/18

# DECK PLUMBING




| ITEM | PART # | DESCRIPTION |
|---|---|---|
| 1 | 100499 | CLAMP, ADEL 1.75ID X .406HOLE |
| 2 | 110491 | BOLT, 5/16-18 X 2.75 |
| 3 | 110492 | BOLT, 5/16-18 X 5.0 |
| 4 | 110606 | NUT, 5/16-18 WIZ FLANGE |
| 5 | 110608 | NUT, 5/16-18 |
| 6 | 110674 | WASHER, 5/16" LOCK |
| 7 | 120235 | ADAPTER, 4MJ-4MB90 |
| 8 | 120241 | ADAPTER, 4MJ-4MJ-4MJ |
| 9 | 120251 | ADAPTER, 10MJ-10MB |
| 10 | 520099 | CLAMP, HOSE #12 .75" |
| 11 | 820097 | CLAMP BODY |
| 12 | 820098 | COVER PLATE |
| 13 | 820158 | DECK VALVE |
| Parts List | | |

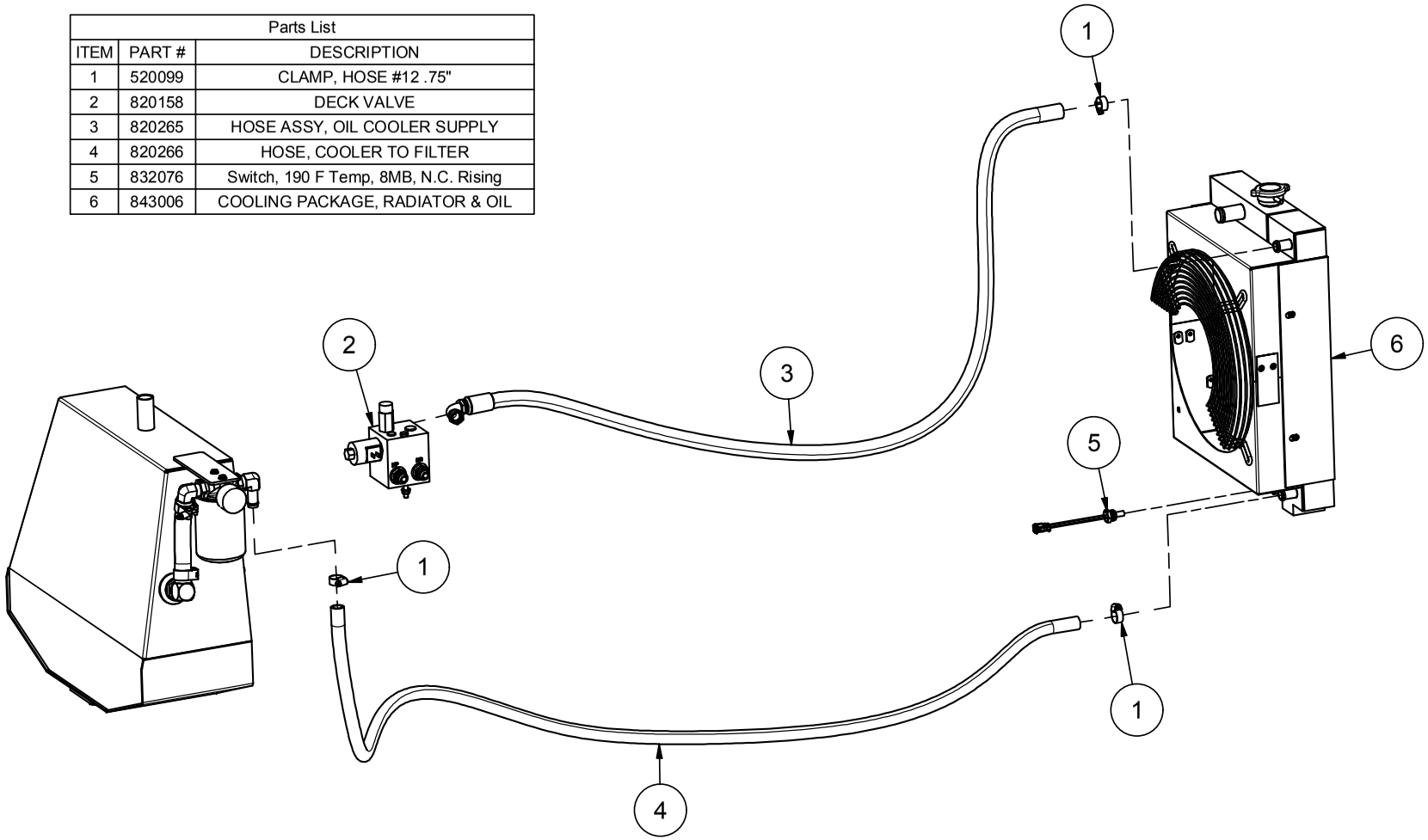
| ITEM | PART # | DESCRIPTION |
|---|---|---|
| 14 | 820261 | HOSE ASSY, DECK PUMP PRESS |
| 15 | 820262 | HOSE ASSY, LH DECK PRESS |
| 16 | 820263 | HOSE ASSY, RH DECK PRESS |
| 17 | 820264 | HOSE ASSY, DECK MOTOR RETURN |
| 18 | 820265 | HOSE ASSY, OIL COOLER SUPPLY |
| 19 | 820284 | HOSE ASSY, RH DECK MTR CD |
| 20 | 820285 | HOSE ASSY, LH DECK MTR CD |
| 21 | 820286 | HOSE ASSY, DECK MTR CD TO TANK |
| 22 | 823016 | MOTOR, DECK, BI-DIRECTIONAL, 1.65 CI |
| Parts List | | |

ASSEMBLY STATION #3 & 4: 875003 & 875004

4/29/2019

# OIL COOLER PLUMBING

| Parts List | | |
|---|---|---|
| ITEM | PART # | DESCRIPTION |
| 1 | 520099 | CLAMP, HOSE #12 .75" |
| 2 | 820158 | DECK VALVE |
| 3 | 820265 | HOSE ASSY, OIL COOLER SUPPLY |
| 4 | 820266 | HOSE, COOLER TO FILTER |
| 5 | 832076 | Switch, 190 F Temp, 8MB, N.C. Rising |
| 6 | 843006 | COOLING PACKAGE, RADIATOR & OIL |

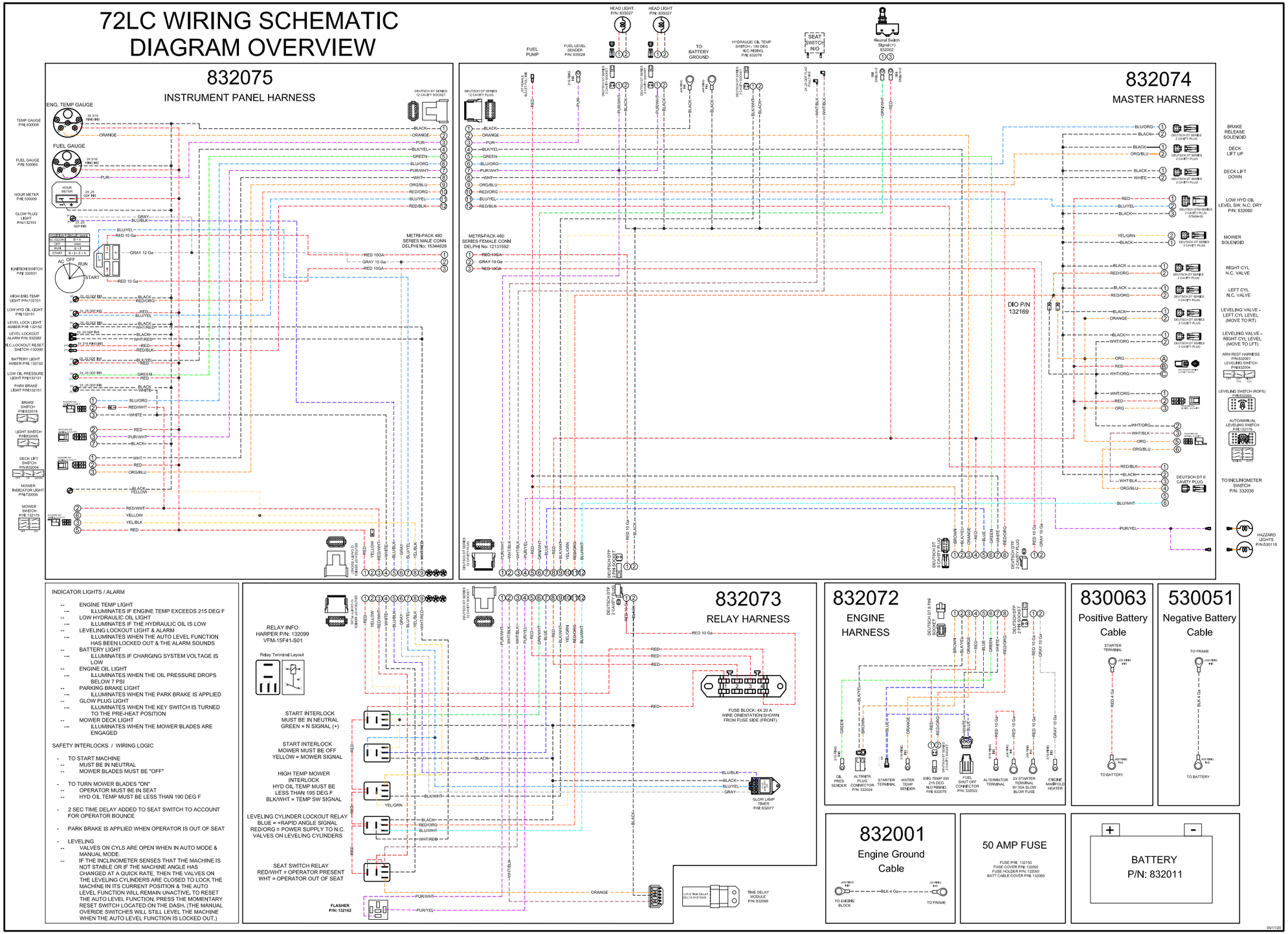


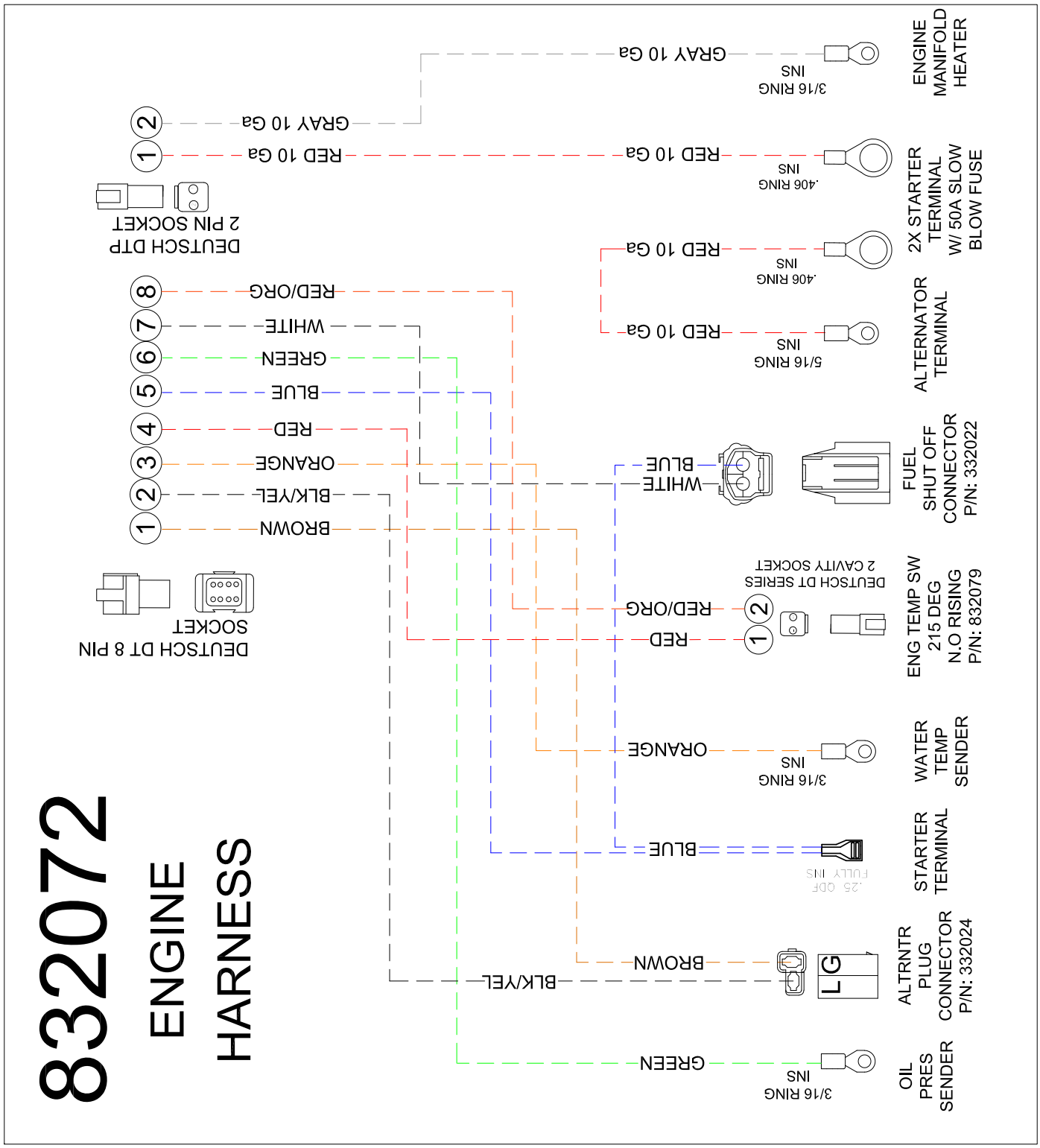

ASSEMBLY STATION #2 & 3: 875002 & 875003

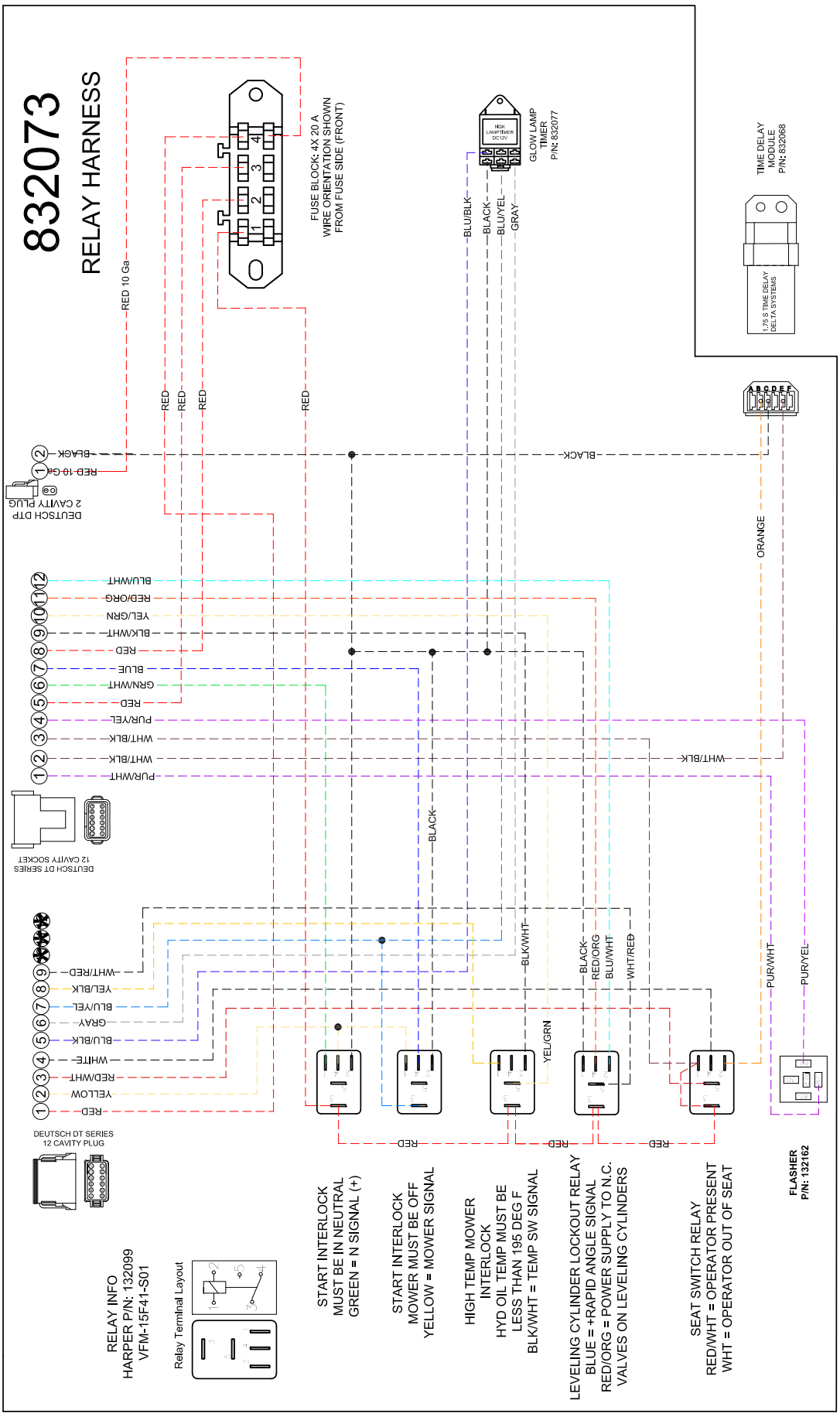
3/4/2019

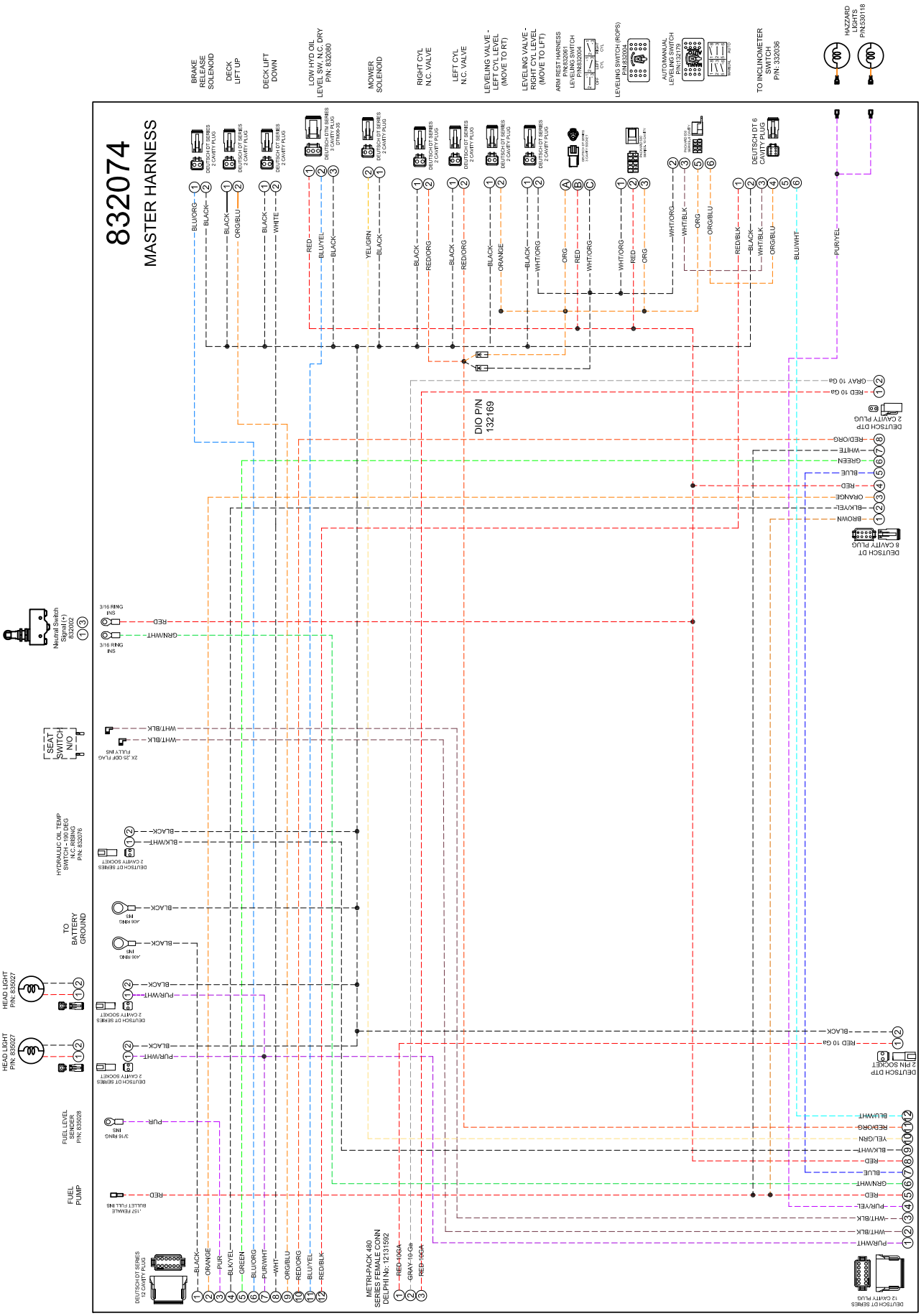
# Electrical System

# 72LC WIRING SCHEMATIC DIAGRAM OVERVIEW



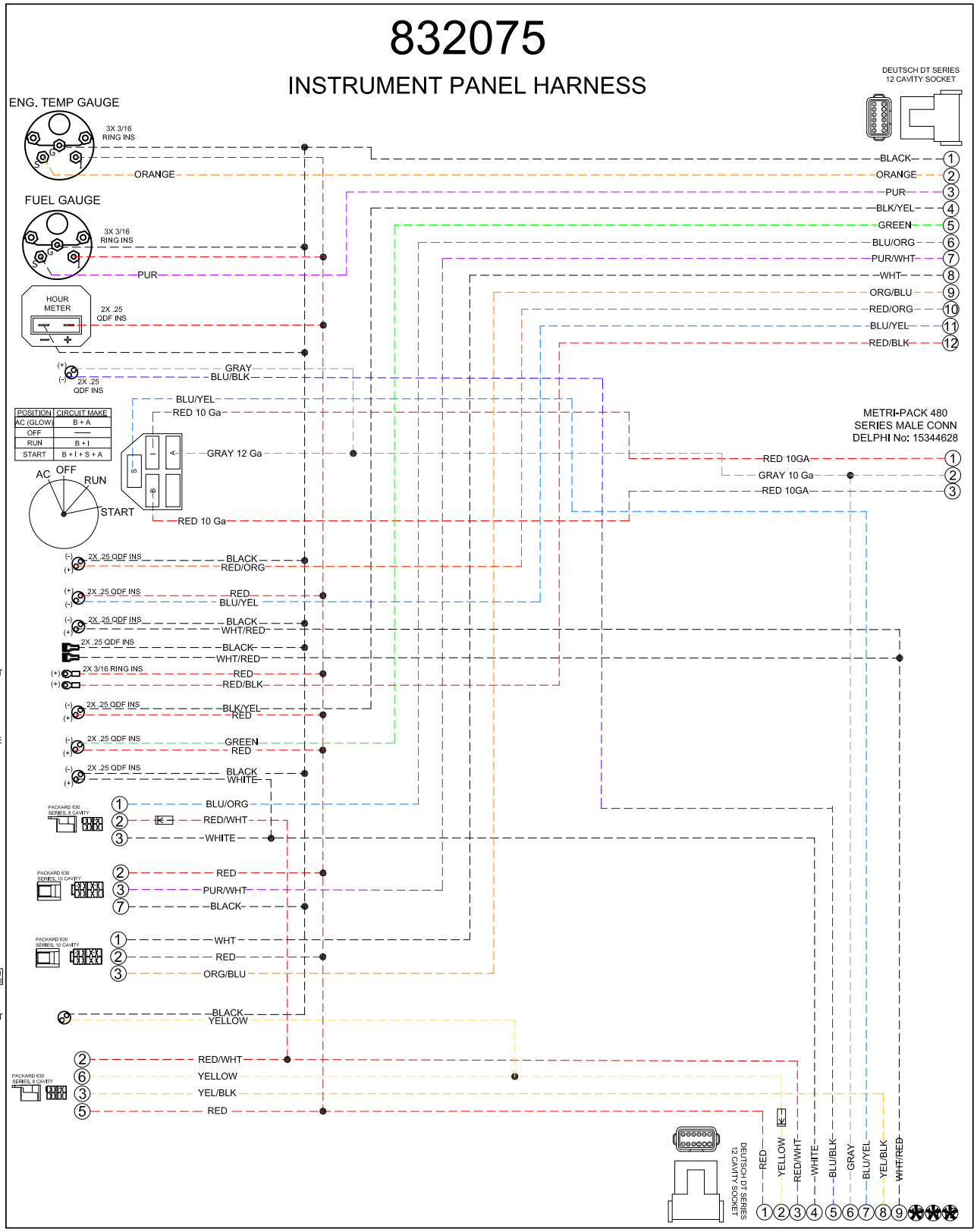

832072
ENGINE
HARNESS
ENGINE MANIFOLD HEATER
3/16 RING
INS
GRAY 10 Ga
2X STARTER TERMINAL W/ 50A SLOW BLOW FUSE
.406 RING
INS
RED 10 Ga
ALTERNATOR TERMINAL
5/16 RING
INS
RED 10 Ga
FUEL SHUT OFF CONNECTOR P/N: 332022
BLUE
WHITE
ENG TEMP SW 215 DEG N.O RISING P/N: 832079
DEUTSCH DT SERIES 2 CAVITY SOCKET
RED/ORG
RED
WATER TEMP SENDER
3/16 RING
INS
ORANGE
STARTER TERMINAL
.25 ODF
FULLY INS
BLUE
ALTRNTR PLUG CONNECTOR P/N: 332024
LG
BROWN
BLK/YEL
OIL PRES SENDER
3/16 RING
INS
GREEN
DEUTSCH DTP 2 PIN SOCKET
GRAY 10 Ga
RED 10 Ga
DEUTSCH DT 8 PIN SOCKET
RED/ORG
WHITE
GREEN
BLUE
RED
ORANGE
BLK/YEL
BROWN


8320 73
RELAY HARNESS
RED 10 Ga
FUSE BLOCK: 4X 20 A
WIRE ORIENTATION SHOWN
FROM FUSE SIDE (FRONT)
GLOW LAMP TIMER P/N: 832077
TIME DELAY MODULE P/N: 832068
1.75 S TIME DELAY DELTA SYSTEMS
BLU/BLK
BLACK
BLU/YEL
GRAY
RED
ORANGE
BLACK
DEUTSCH DTP 2 CAVITY PLUG
DEUTSCH DT SERIES 12 CAVITY SOCKET
DEUTSCH DT SERIES 12 CAVITY PLUG
WHT/RED
YEL/BLK
BLU/YEL
GRAY
BLU/BLK
WHITE
RED/WHT
YELLOW
RED
PUR/WHT
WHT/BLK
WHT/BLK
PUR/YEL
RED
GRN/WHT
BLUE
RED
BLK/WHT
YEL/GRN
RED/ORG
BLU/WHT
RELAY INFO
HARPER P/N: 132099
VFM-15F41-S01
Relay Terminal Layout
START INTERLOCK
MUST BE IN NEUTRAL
GREEN = N SIGNAL (+)
START INTERLOCK
MOWER MUST BE OFF
YELLOW = MOWER SIGNAL
HIGH TEMP MOWER
INTERLOCK
HYD OIL TEMP MUST BE
LESS THAN 195 DEG F
BLK/WHT = TEMP SW SIGNAL
LEVELING CYLINDER LOCKOUT RELAY
BLUE = +RAPID ANGLE SIGNAL
RED/ORG = POWER SUPPLY TO N.C.
VALVES ON LEVELING CYLINDERS
SEAT SWITCH RELAY
RED/WHT = OPERATOR PRESENT
WHT = OPERATOR OUT OF SEAT
FLASHER
P/N: 132162


832074
MASTER HARNESS
BRAKE RELEASE SOLENOID
DECK LIFT UP
DECK LIFT DOWN
LOW HYD OIL LEVEL SW, N.C. DRY P/N: 832080
MOWER SOLENOID
RIGHT CYL N.C. VALVE
LEFT CYL N.C. VALVE
LEVELING VALVE - LEFT CYL LEVEL (MOVE TO RT)
LEVELING VALVE - RIGHT CYL LEVEL (MOVE TO LFT)
ARM REST HARNESS P/N:832061
LEVELING SWITCH P/N:832064
LEVELING SWITCH (ROPS) P/N:832004
AUTOMANUAL LEVELING SWITCH P/N:133179
TO INCLINOMETER SWITCH P/N: 332036
HAZZARD LIGHTS P/N330118
DIO P/N 132169
Neutral Switch Signal (+) 832002
SEAT SWITCH N/O
HYDRAULIC OIL TEMP SWITCH - 100 DEG N.C.-RISING P/N: 832076
TO BATTERY GROUND
HEAD LIGHT P/N: 835027
HEAD LIGHT P/N: 835027
FUEL LEVEL SENDER P/N: 835028
FUEL PUMP
METRI-PACK 480 SERIES FEMALE CONN DELPHI No: 12131592
DEUTSCH DT 6 CAVITY PLUG
DEUTSCH DTP 2 CAVITY PLUG
DEUTSCH DT 8 CAVITY PLUG
DEUTSCH DTP 2 PIN SOCKET
DEUTSCH DT SERIES 12 CAVITY PLUG

# 832075

## INSTRUMENT PANEL HARNESS



INDICATOR LIGHTS / ALARM

-- ENGINE TEMP LIGHT
--- ILLUMINATES IF ENGINE TEMP EXCEEDS 215 DEG F
-- LOW HYDRAULIC OIL LIGHT
--- ILLUMINATES IF THE HYDRAULIC OIL IS LOW
-- LEVELING LOCKOUT LIGHT & ALARM
--- ILLUMINATES WHEN THE AUTO LEVEL FUNCTION HAS BEEN LOCKED OUT & THE ALARM SOUNDS
-- BATTERY LIGHT
--- ILLUMINATES IF CHARGING SYSTEM VOLTAGE IS LOW
-- ENGINE OIL LIGHT
--- ILLUMINATES WHEN THE OIL PRESSURE DROPS BELOW 7 PSI
-- PARKING BRAKE LIGHT
--- ILLUMINATES WHEN THE PARK BRAKE IS APPLIED
-- GLOW PLUG LIGHT
--- ILLUMINATES WHEN THE KEY SWITCH IS TURNED TO THE PRE-HEAT POSITION
-- MOWER DECK LIGHT
--- ILLUMINATES WHEN THE MOWER BLADES ARE ENGAGED

SAFETY INTERLOCKS / WIRING LOGIC

- TO START MACHINE
-- MUST BE IN NEUTRAL
-- MOWER BLADES MUST BE "OFF"

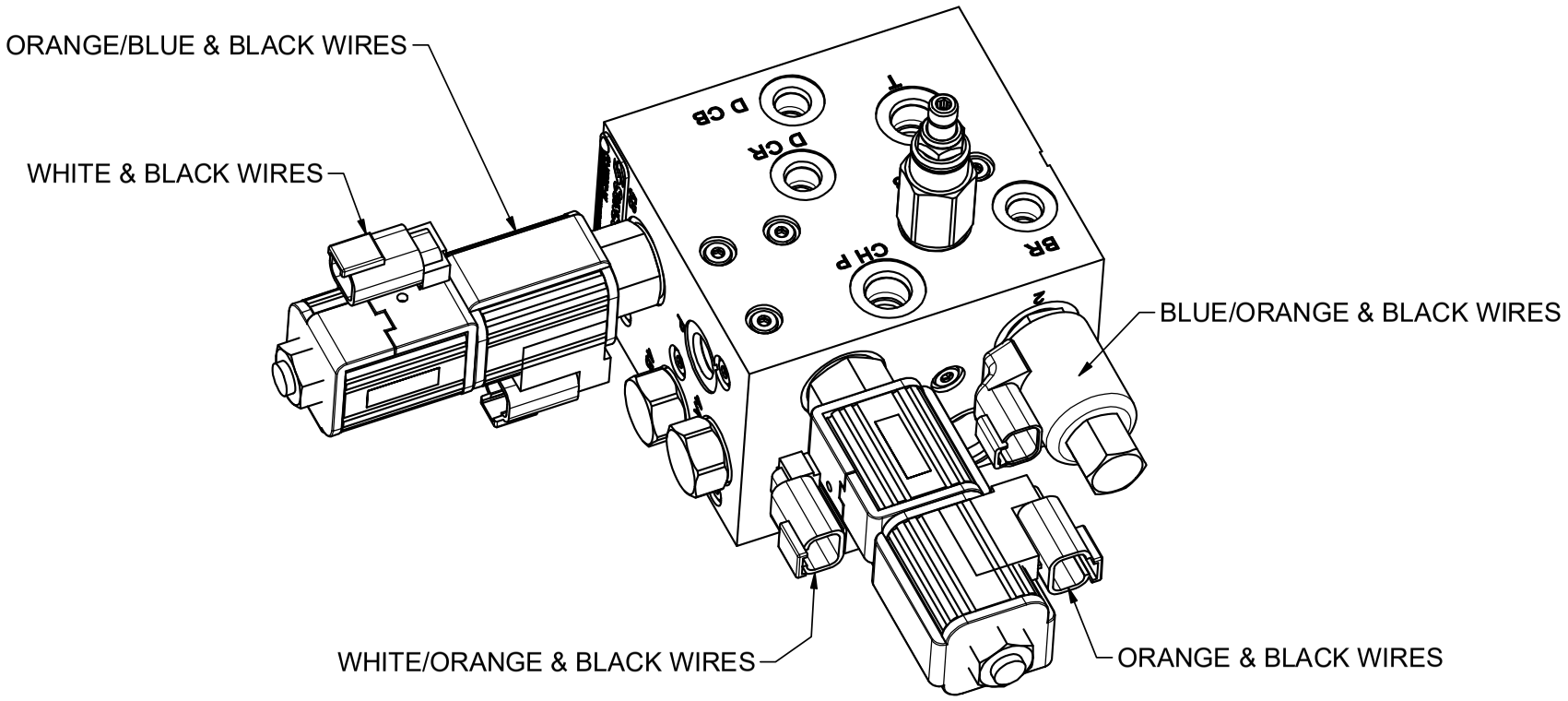
- TO TURN MOWER BLADES "ON"
-- OPERATOR MUST BE IN SEAT
-- HYD OIL TEMP MUST BE LESS THAN 190 DEG F

- 2 SEC TIME DELAY ADDED TO SEAT SWITCH TO ACCOUNT FOR OPERATOR BOUNCE

- PARK BRAKE IS APPLIED WHEN OPERATOR IS OUT OF SEAT

- LEVELING
-- VALVES ON CYLS ARE OPEN WHEN IN AUTO MODE & MANUAL MODE.
-- IF THE INCLINOMETER SENSES THAT THE MACHINE IS NOT STABLE OR IF THE MACHINE ANGLE HAS CHANGED AT A QUICK RATE, THEN THE VALVES ON THE LEVELING CYLINDERS ARE CLOSED TO LOCK THE MACHINE IN ITS CURRENT POSITION & THE AUTO LEVEL FUNCTION WILL REMAIN UNACTIVE. TO RESET THE AUTO LEVEL FUNCTION, PRESS THE MOMENTARY RESET SWITCH LOCATED ON THE DASH. (THE MANUAL OVERIDE SWITCHES WILL STILL LEVEL THE MACHINE WHEN THE AUTO LEVEL FUNCTION IS LOCKED OUT.)

# AUXIALARY VALVE - COIL WIRING IDENTIFICATION



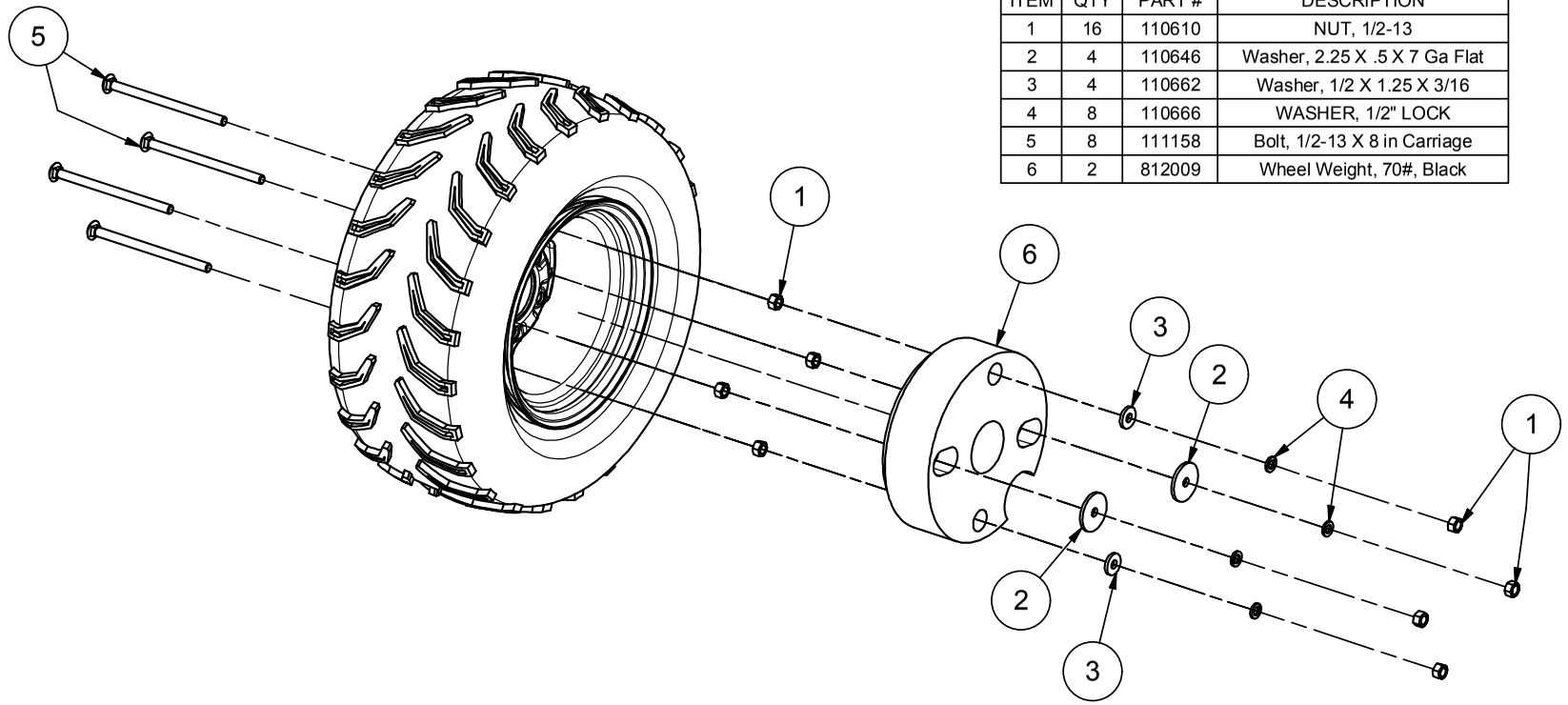

4/29/2019

# Options

# WHEEL WEIGHT KIT

P/N: 801004 - CUSTOMER INSTALL
P/N: 801005 - FACTORY INSTALL

| Parts List | | | |
|---|---|---|---|
| ITEM | QTY | PART # | DESCRIPTION |
| 1 | 16 | 110610 | NUT, 1/2-13 |
| 2 | 4 | 110646 | Washer, 2.25 X .5 X 7 Ga Flat |
| 3 | 4 | 110662 | Washer, 1/2 X 1.25 X 3/16 |
| 4 | 8 | 110666 | WASHER, 1/2" LOCK |
| 5 | 8 | 111158 | Bolt, 1/2-13 X 8 in Carriage |
| 6 | 2 | 812009 | Wheel Weight, 70#, Black |




4/30/2019