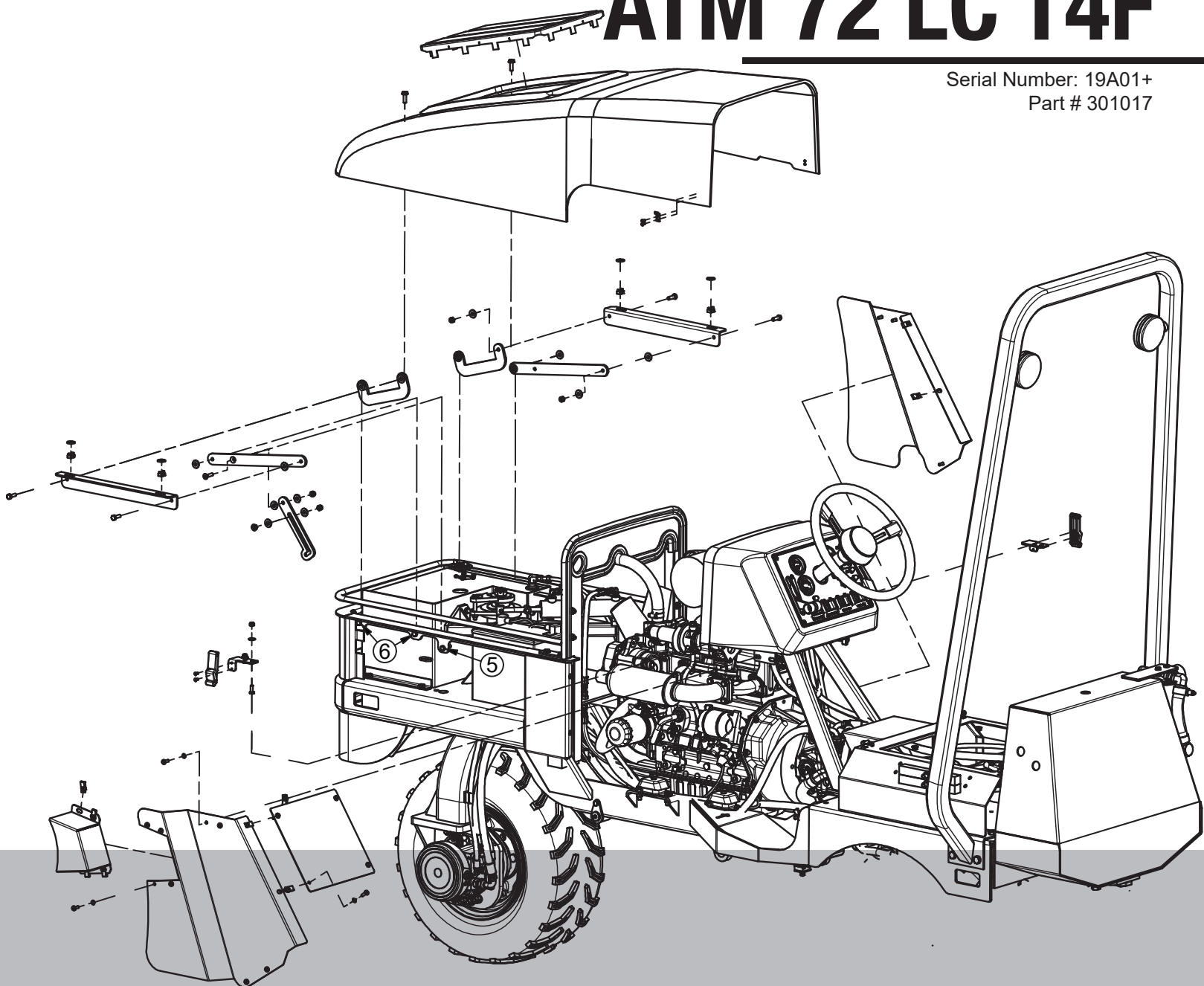


ATM 72 LC T4F

Serial Number: 19A01+
Part # 301017



OPERATOR'S & PARTS MANUAL



11-2025

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 _____

Table of Contents

OPERATOR SECTION

To the Owner or Operator.....	1
Warranty Statement.....	2
Table of Contents.....	3
Specifications.....	4
Control Identification.....	5-7
Safety Guidelines	
Equipment & Controls.....	8
Safety Decals.....	8
Diesel Fuel.....	8
Guards & Shields.....	8
Battery.....	9
Hydraulics.....	9
Safety Interlocks/Wiring Logic.....	9
Before Operation.....	9
During Operation.....	10
Maintenance	
Hydraulic System.....	10
Grease Zerk Locations.....	11
Air Cleaner.....	11
Cooling System.....	12
Engine Oil.....	12
Fuel Filter.....	13
Fuse/Relay Panel.....	13
Deck Service Mode.....	13
Hydraulic Valves.....	14
Tow Procedure/Transporting	
Moving the machine w/o starting.....	15
Park Brake Release.....	15
Opening the Bypass Valve.....	15
Tie Down Locations.....	16
Adjustments	
Seat Adjustment.....	16
Cutting Height.....	17
Standard Torque Chart.....	18
Service Parts.....	18
Operating Guide.....	19-20
Service Schedule.....	20-21

PARTS SECTION

Frame & Assemblies	
Front Steering Assembly.....	24
Rear Stabilizer Arm Assembly.....	25
Deck Linkage Installation.....	26
Engine Assembly.....	27
Engine Installation.....	28-29
Fuel Tank Installation.....	30
Steering Tower and Foot Pedal Installation.....	31-32
Console Assembly.....	33
ROPs and Steering Wheel Installation.....	34
Electrical Assembly.....	35
Hood and Cowling Installation.....	36-37
Toolbox and Deck Lift Assembly.....	38
Seat and Screens Assembly.....	39
Wheel and Tire Installation.....	40
Deck Assembly.....	41
Deck Installation.....	42
Decal Layout.....	43-46
Hydraulic Systems	
Hydraulic Tank Assembly.....	47
Hydraulic Schematic.....	48
Propulsion Pump and Wheel Motor Assy.....	49
Valve Assemblies.....	50
Valve and Tank Installation.....	51
Propulsion System.....	52
Propulsion Circuit	53
Propulsion Plumbing - Pump and Valves.....	54
Propulsion Plumbing - Wheel Motors.....	55
Machine Hydraulic System.....	56
Gear Pump Assembly and Plumbing.....	57
Steering Circuit.....	58
Steering Plumbing.....	59
Auxiliary Circuit.....	60
Deck Lift Plumbing.....	61
Leveling Plumbing.....	62
Deck Circuit.....	63
Deck Plumbing.....	64
Oil Cooler Plumbing.....	65
Electrical Systems	
Electrical Schematic Overview.....	66
Engine Harness.....	67
Relay Harness.....	68
Master Harness.....	69
Instrument Panel Harness.....	70
Electrical Wiring Logic.....	71
Auxiliary Valve - Coil Wiring identification.....	72
Options	
Wheel Weight Kit.....	73
Canopy & Inclinator.....	72

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) • Independently free floating, with rear discharge • Constructed of reinforced 10 gauge steel
Cutting Height	3 - 6" adjustable cutting height
Hydraulics	• Direct hydraulic blade drive (no belts or gear boxes) • Poclain hydrostat - PM10 variable displacement axial piston pump • Poclain high efficiency axial piston wheel motors with integrated parking brake. • Hydraulic filter - 3 micron with indicator • Hydraulic oil cooler
Speed	• 0-7 MPH ground speed • Foot operated speed control - self-centering to neutral
Options	• Incline Meter Assembly - Part # 815052 • Factory Install Wheel Weight Kit - Part # 801005 • Customer Install Wheel Weight Kit - Part # 801004 • White Canopy - Part # 802039 • Red Canopy - Part # 802040
Tires	Drive Tire: 25" x 11-12 - 6 ply Stabilizer Tire: 16.5" x 6.5 x 8" foam filled 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) • Seat belt • 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.

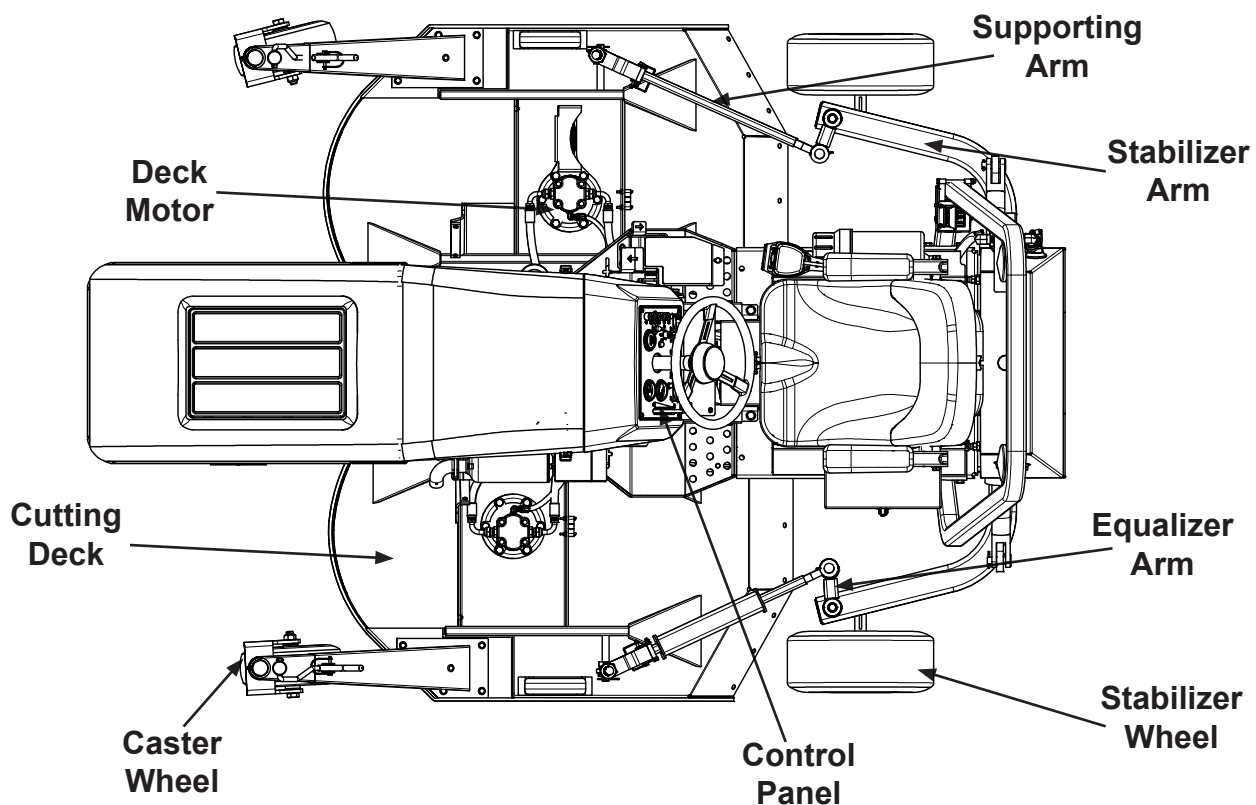
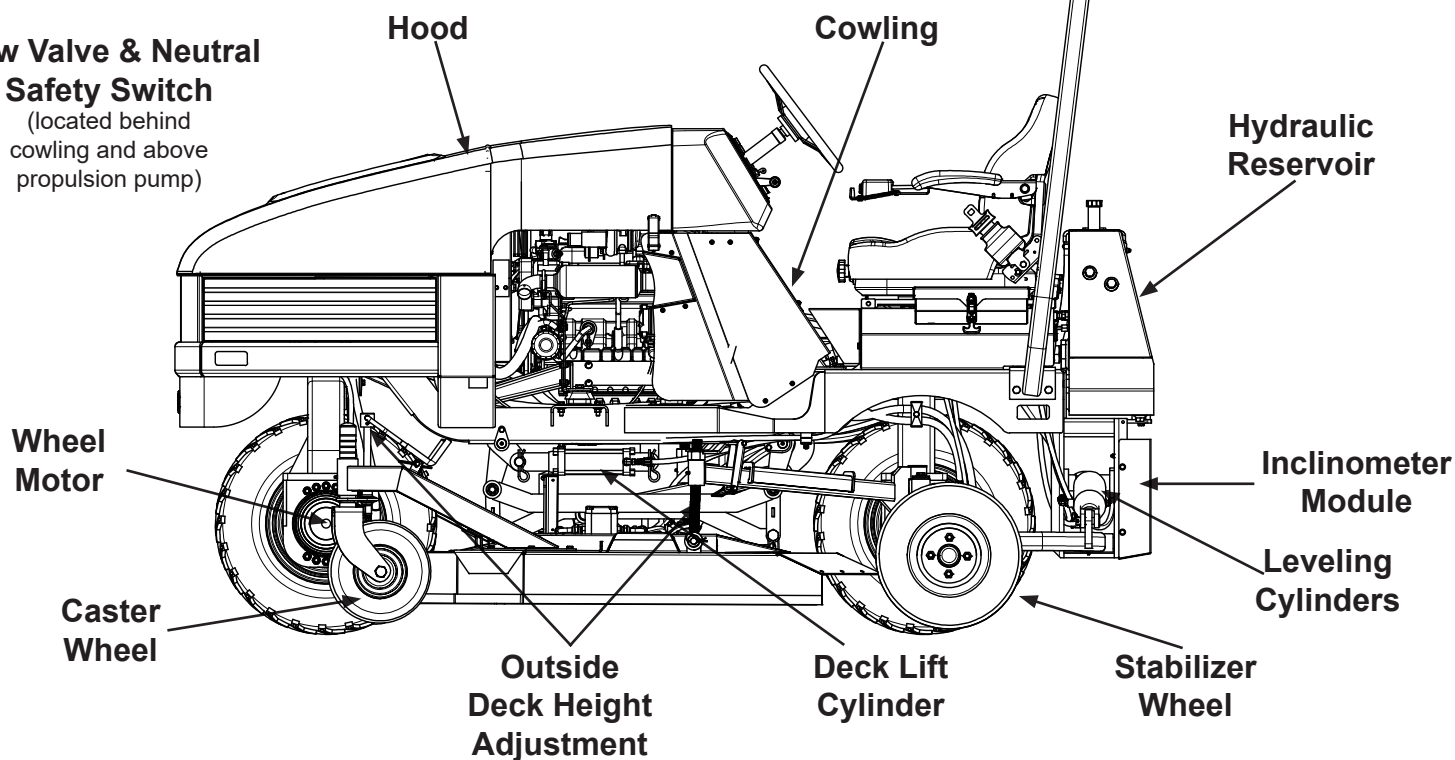
Control Identification

Diesel Fuel Tank

(located under hood
at front of mower)

Tow Valve & Neutral Safety Switch

(located behind
cowling and above
propulsion pump)





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 preheat 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.

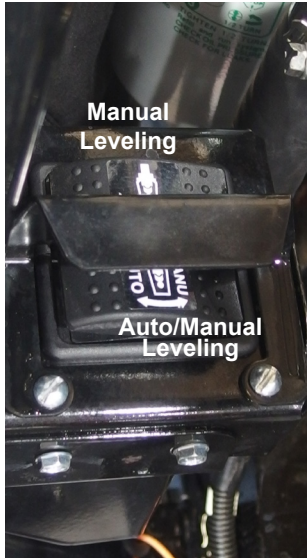
Hydraulic Level Light – turns on when the hydraulic oil is low.

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.

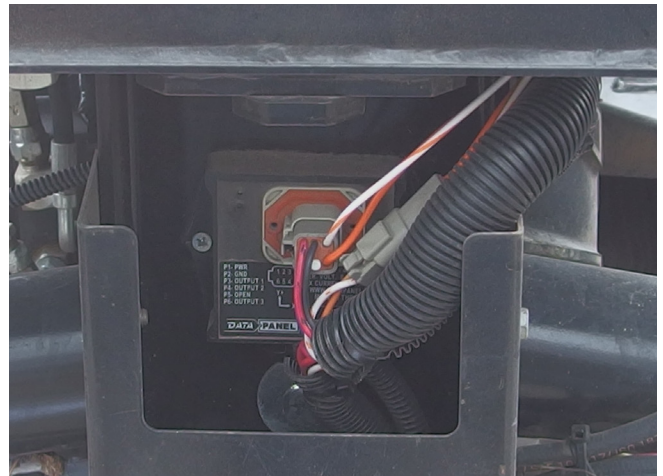
Engine Oil Light – turns on when the oil pressure drops below 7 psi.

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's 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 on 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.



SAFETY WARNING!



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

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.



SAFETY WARNING!



Escaping fluid under pressure can penetrate skin causing serious injury.

Hydraulics

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

- Valves on the cylinders are open when in auto mode or when the manual switch is activated to level the machine.
- 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

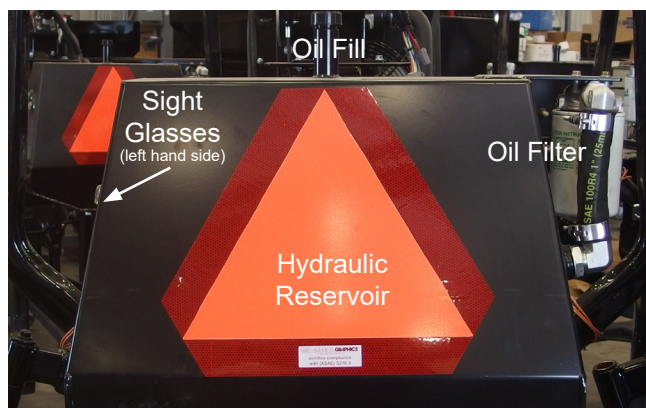
- The hydraulic system of the ATM72LC is filled at the factory with Crown AW 46 hydraulic oil that has an ISO of 46.
- The ATM72LC has a 3 micron, beta rated hydraulic oil filter designed for long life.

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.

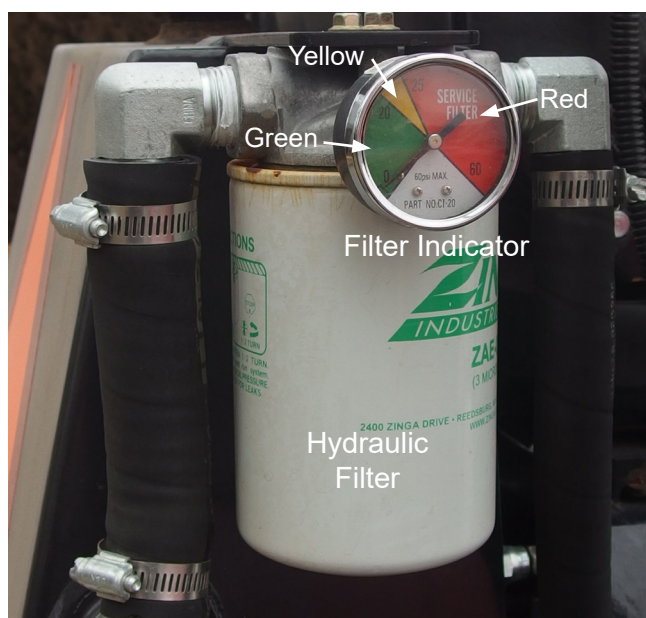
Appropriate replacements:

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 Unavis N 46
- Pennzoil AWX MV 46
- Shell Tellus 52 M46
- Shell Tellus 52 V46
- Texaco Rando HDZ 46

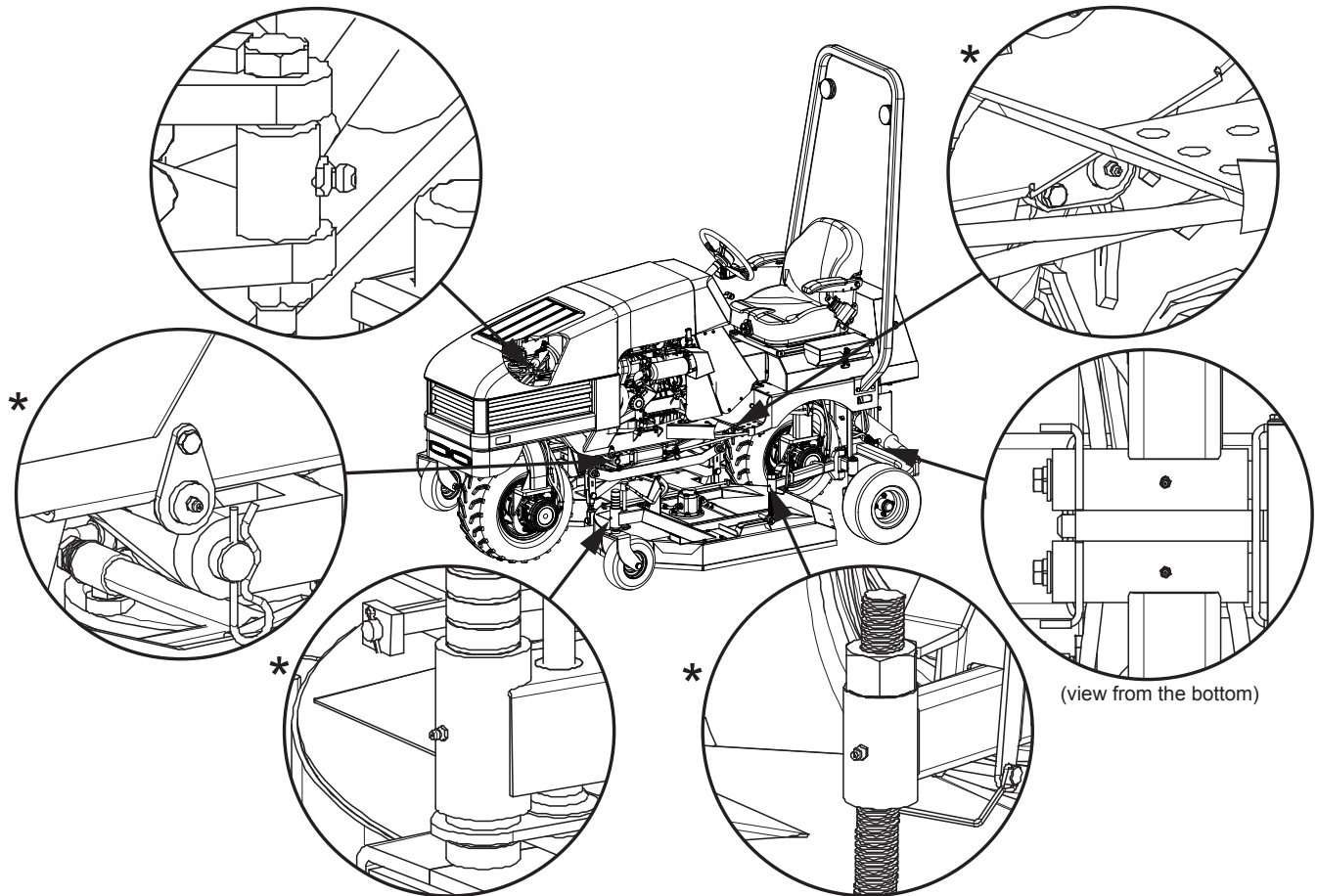


- On a daily basis, monitor the needle in the filter indicator when the oil is at normal operating temperature.



- 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

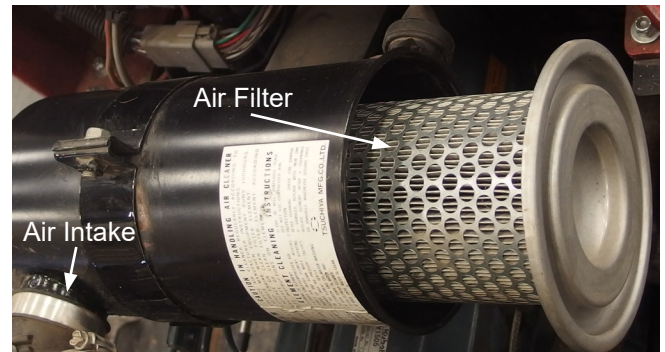


* Denotes a second grease zerk identical to this one on the other side.

PROCEDURE

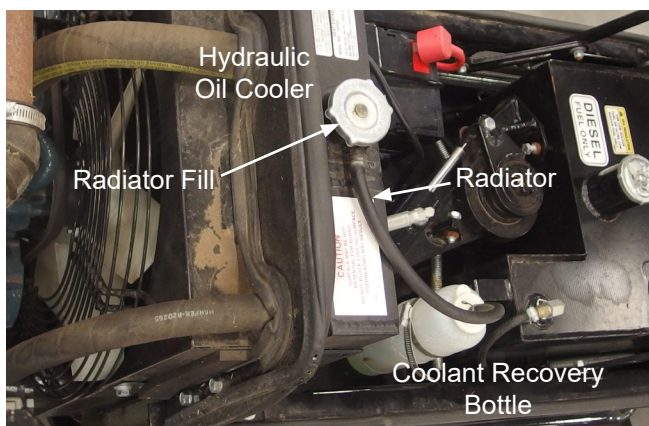
- 1) Park on level ground and set park brake.
- 2) Turn off ATM.
- 3) Give 2 to 3 shots of grease after every 10 hours of use.

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



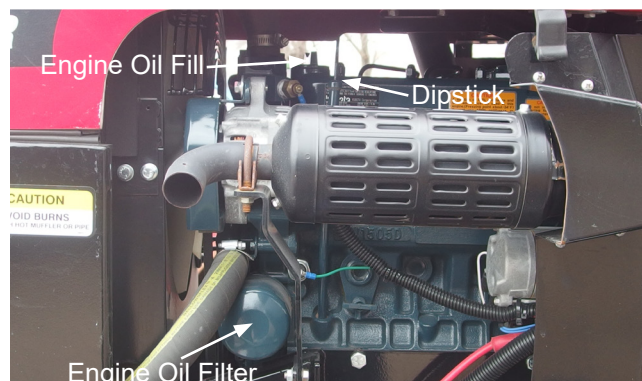
- The radiator and hydraulic oil cooler are located side by side in the same aluminum heat exchanger.
- Clear hydraulic oil cooler and radiator of debris with pressurized air daily or as needed.
- Check radiator level daily and only when engine is cool and not running.
- Remove cap (radiator fill) slowly to relieve any pressure.
- 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.

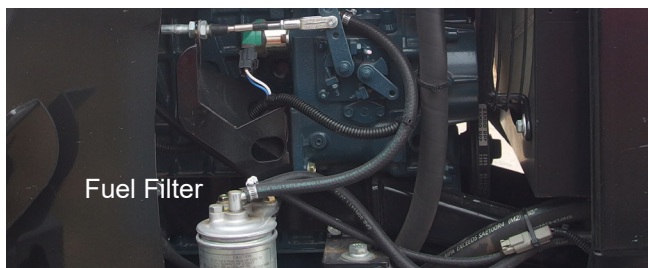


Keep dipstick and oil fill cap secured tightly. Engine oil may escape through these orifices when engine is running causing severe burns.

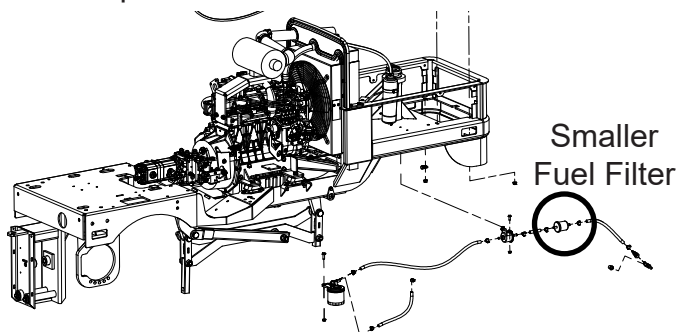
above 77°F (25°C)	SAE 30 or SAE 10W-30 SAE 15W-40
14°F - 77°F (-10°C - 25°C)	SAE 10W-30 SAE 15W-40
below 14°F (-10°C)	SAE 10W-30

- 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



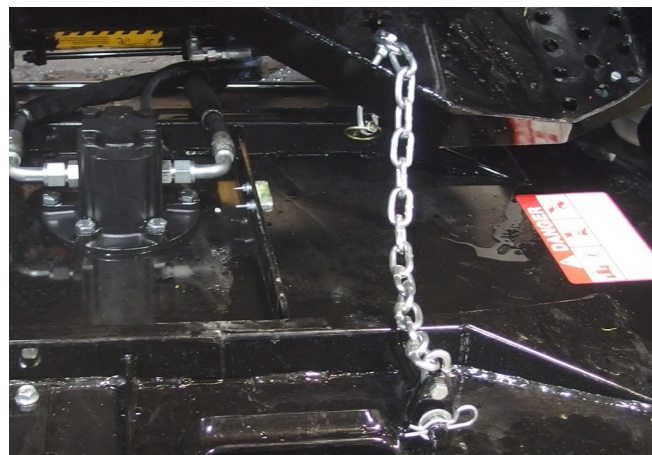
- Located under the hood behind the dash of the mower.
- All fuses are 20 amp.

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.



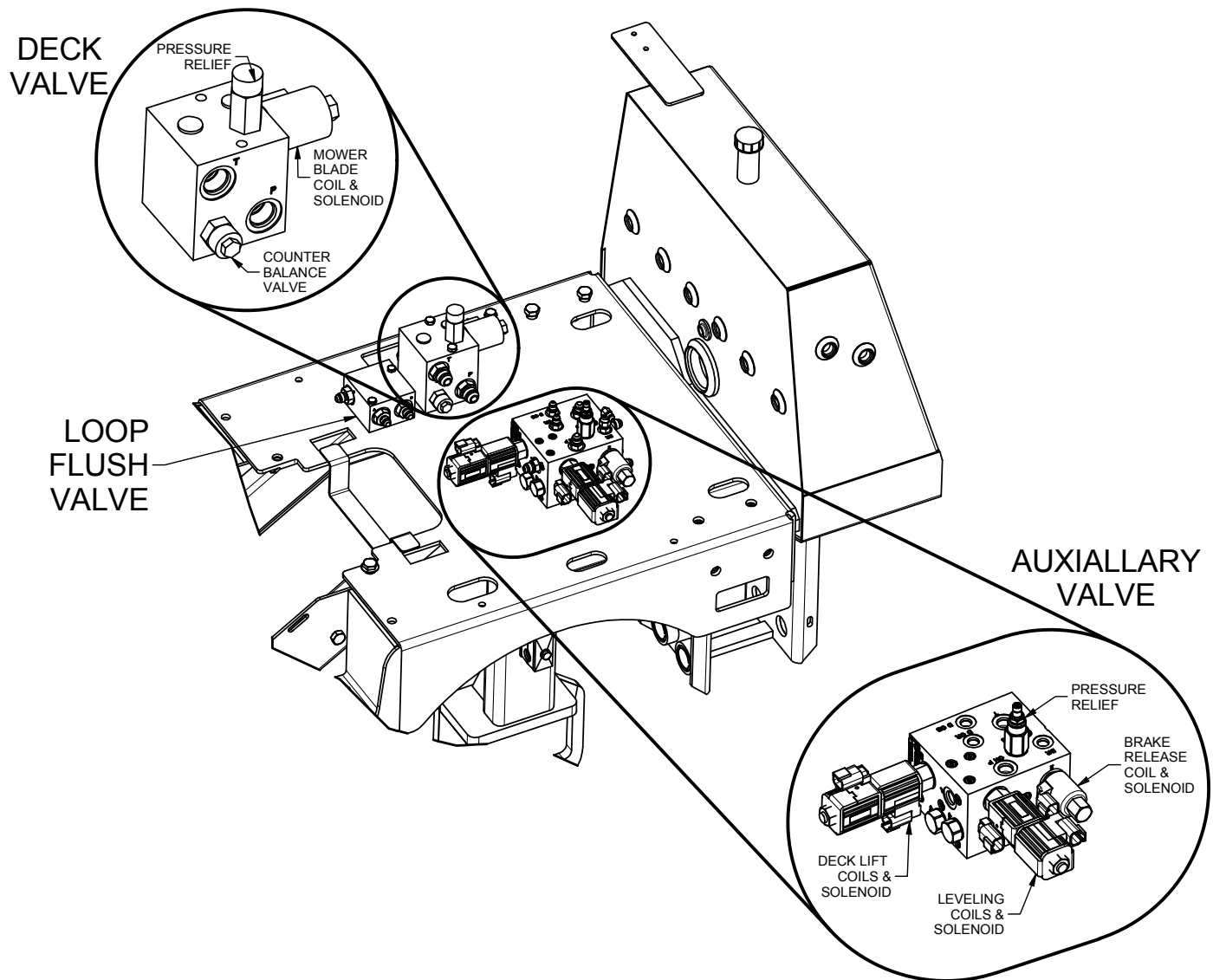
- Block deck up before working under the deck.



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.



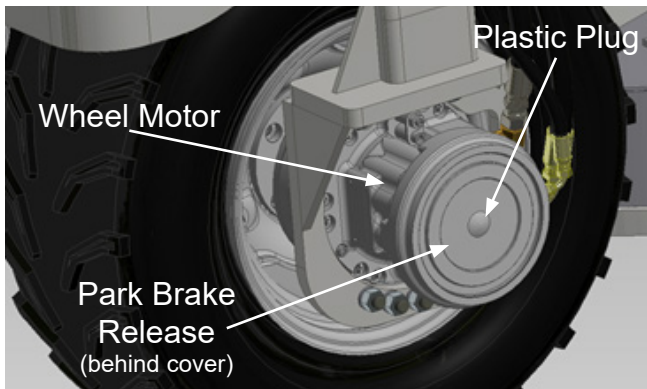
Tow Procedure

Moving the machine with engine off

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



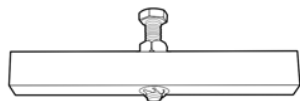
PRECAUTION



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.



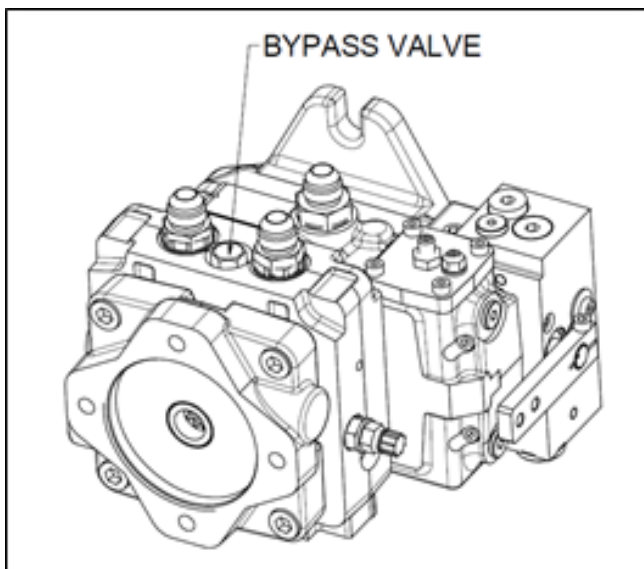
PRECAUTION



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.

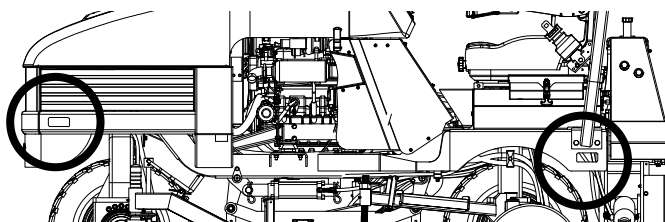
Close the bypass valve tightly when finished moving unit. Failure to close valve tightly will result in full or partial loss of power.



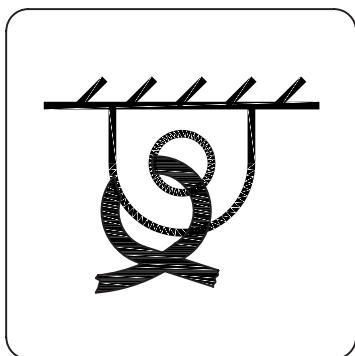
PROCEDURE

- 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

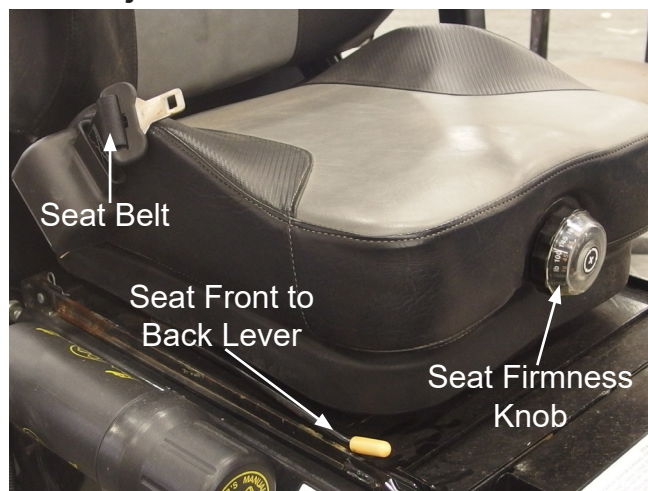


There are (4) tie down locations designated on the machine that are located at the front and rear of each side of the machine, and they are accompanied by the following decal:



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.

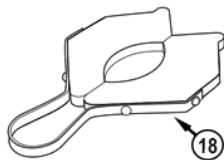
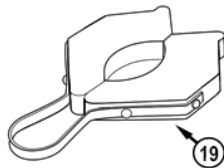
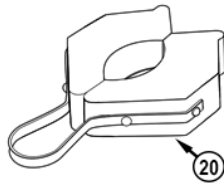


Using the decal on the side of the frame or the picture below, identify the cylinder spacer(s) needed to achieve the desired cut height. The cylinder spacers are located in the tool box on the LH side of the seat frame. The spacers provided include:

2 - 0.25"

1 - 0.50"

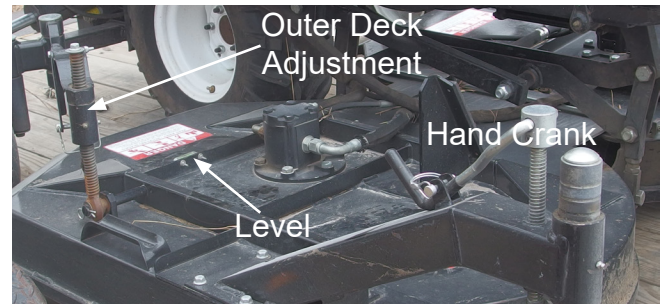
1 - 1.00"



X CYLINDER SPACER	Y CUT HEIGHT	
Ø	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



PRECAUTION



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 1/3 of torque value, then tighten to 2/3 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

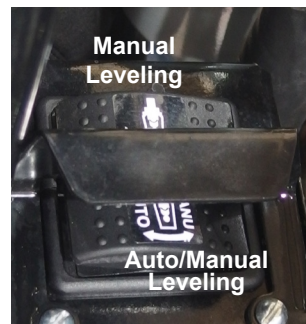
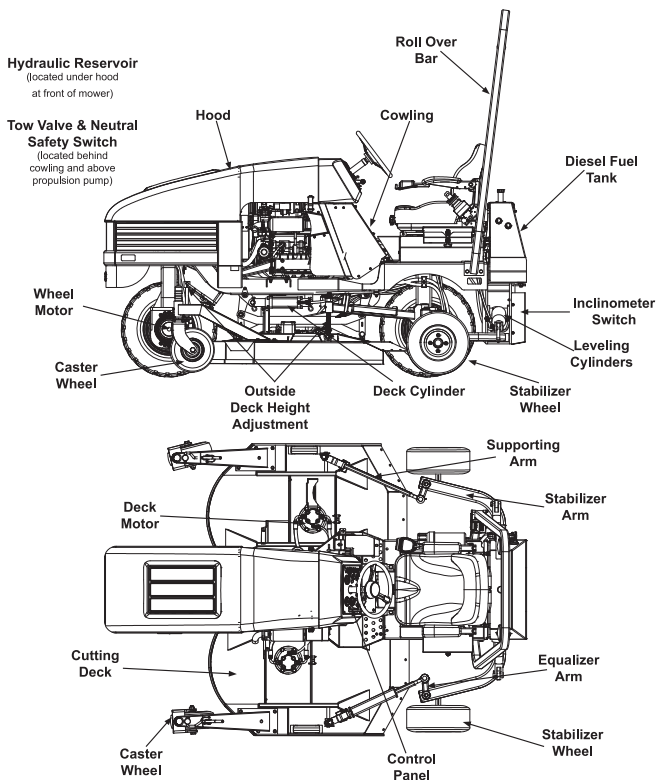
Wheels and Tires

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

ATM72 LC Operating Guide

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

- The machine 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 the 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.

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

PARTS

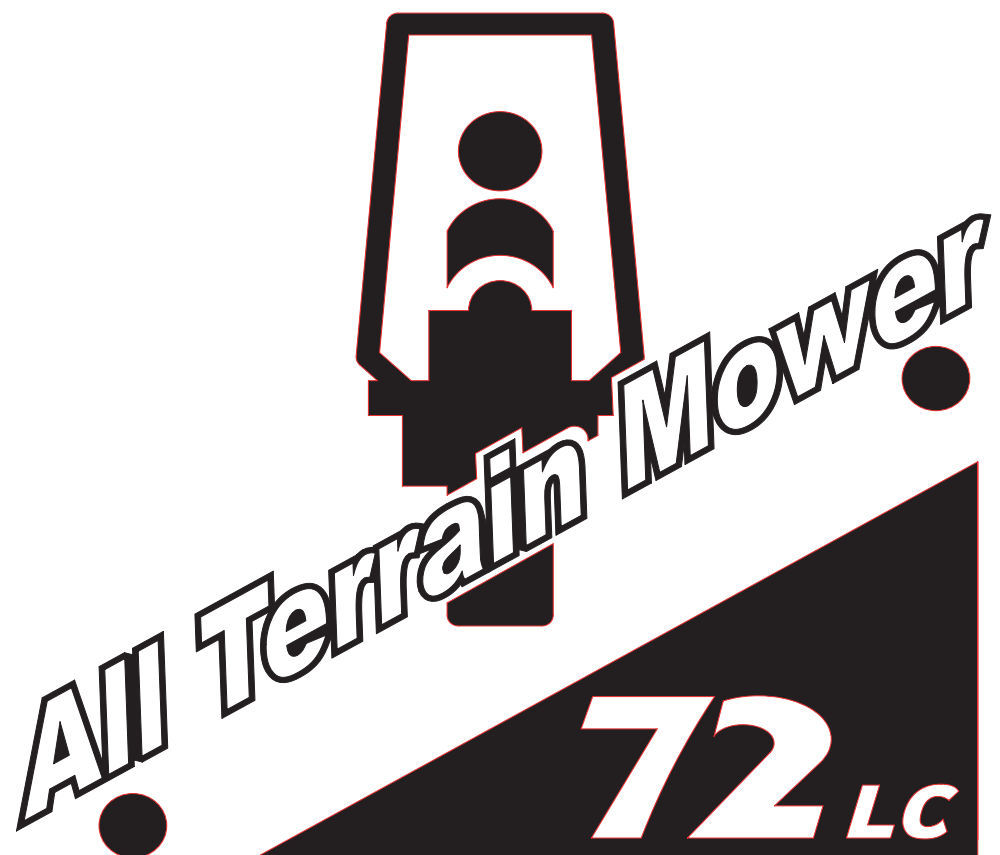


Table of Contents

PARTS SECTION

Frame & Assemblies

Front Steering Assembly.....	24
Rear Stabilizer Arm Assembly.....	25
Deck Linkage Installation.....	26
Engine Assembly.....	27
Engine Installation.....	28-29
Fuel Tank Installation.....	30
Steering Tower and Foot Pedal Installation.....	31-32
Console Assembly.....	33
ROPs and Steering Wheel Installation.....	34
Electrical Assembly.....	35
Hood and Cowling Installation.....	36-37
Toolbox and Deck Lift Assembly.....	38
Seat and Screens Assembly.....	39
Wheel and Tire Installation.....	40
Deck Assembly.....	41
Deck Installation.....	42
Decal Layout.....	43-46

Hydraulic Systems

Hydraulic Tank Assembly.....	47
Hydraulic Schematic.....	48
Propulsion Pump and Wheel Motor Assy.....	49
Valve Assemblies.....	50
Valve and Tank Installation.....	51
Propulsion System.....	52
Propulsion Circuit	53
Propulsion Plumbing - Pump and Valves.....	54
Propulsion Plumbing - Wheel Motors.....	55
Machine Hydraulic System.....	56
Gear Pump Assembly and Plumbing.....	57
Steering Circuit.....	58
Steering Plumbing.....	59
Auxiliary Circuit.....	60
Deck Lift Plumbing.....	61
Leveling Plumbing.....	62
Deck Circuit.....	63
Deck Plumbing.....	64
Oil Cooler Plumbing.....	65

Electrical Systems

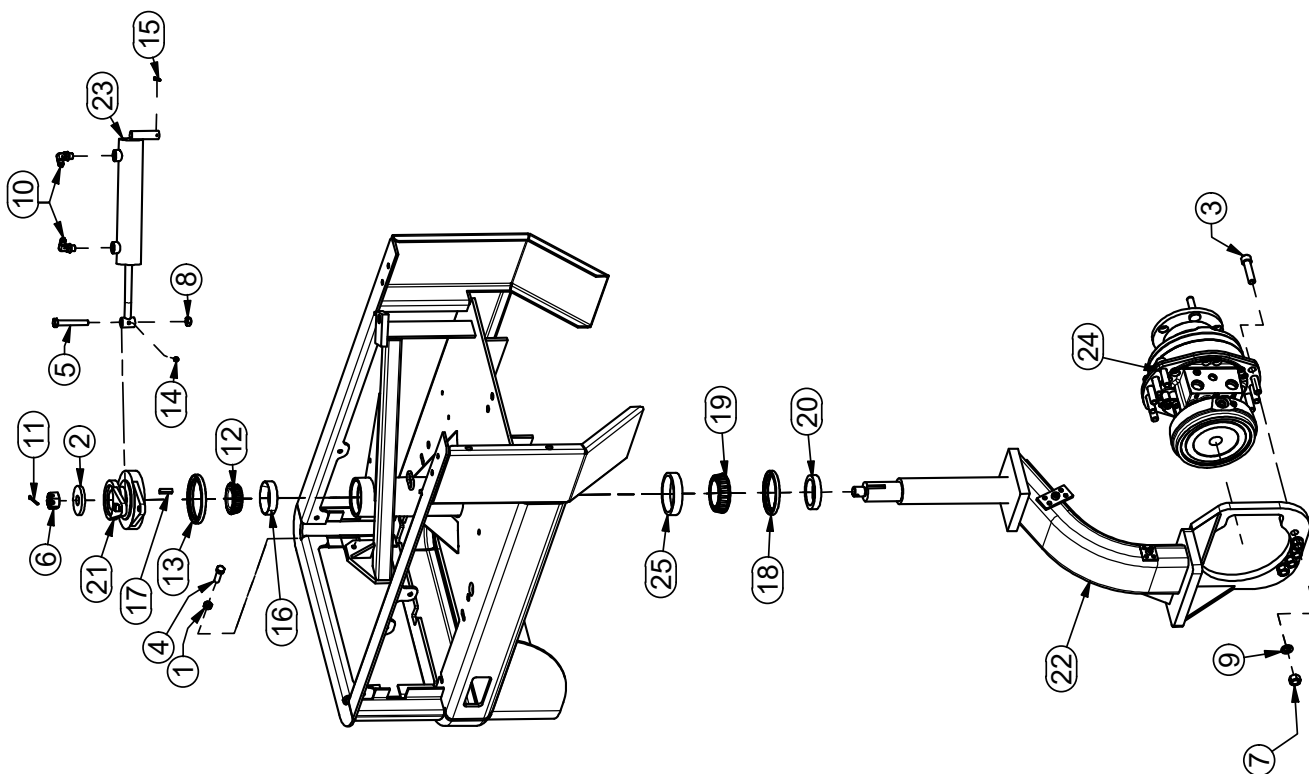
Electrical Schematic Overview.....	66
Engine Harness.....	67
Relay Harness.....	68
Master Harness.....	69
Instrument Panel Harness.....	70
Electrical Wiring Logic.....	71
Auxiliary Valve - Coil Wiring identification.....	72

Options

Wheel Weight Kit.....	73
Canopy & Inclinometer.....	72

FRONT STEERING ASSEMBLY

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



ASSEMBLY STATION #1: 875001

8/27/2020

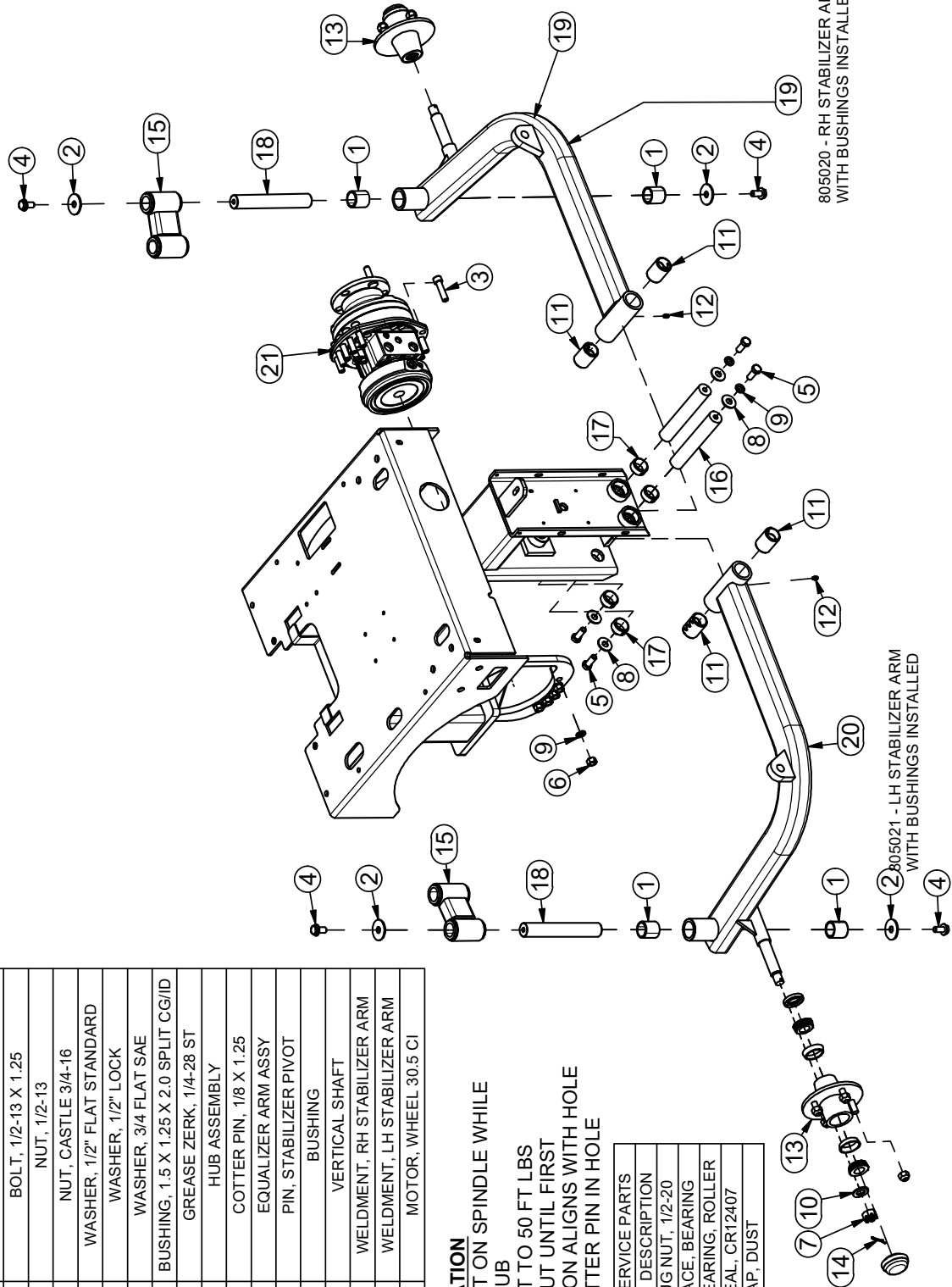
REAR STABILIZER ARM ASSEMBLY

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

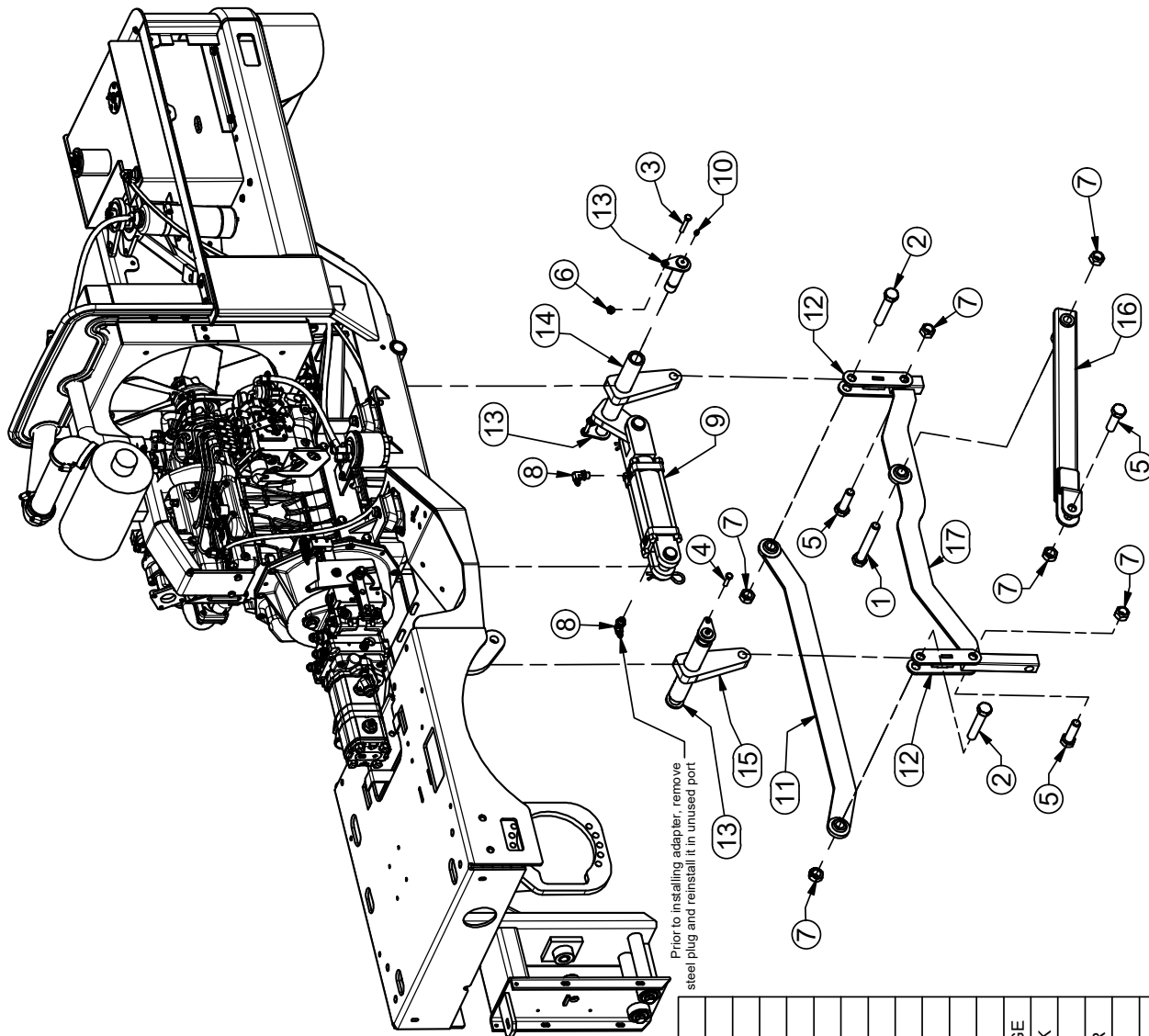
510235 HUB - SERVICE PARTS	
PART #	DESCRIPTION
110617	4 LUG NUT, 1/2-20
510465	2 RACE, BEARING
510466	2 BEARING, ROLLER
510467	1 SEAL, CR12407
510469	1 CAP, DUST



ASSEMBLY STATION #1: 875001

11/2/2022

DECK LINKAGE INSTALLATION

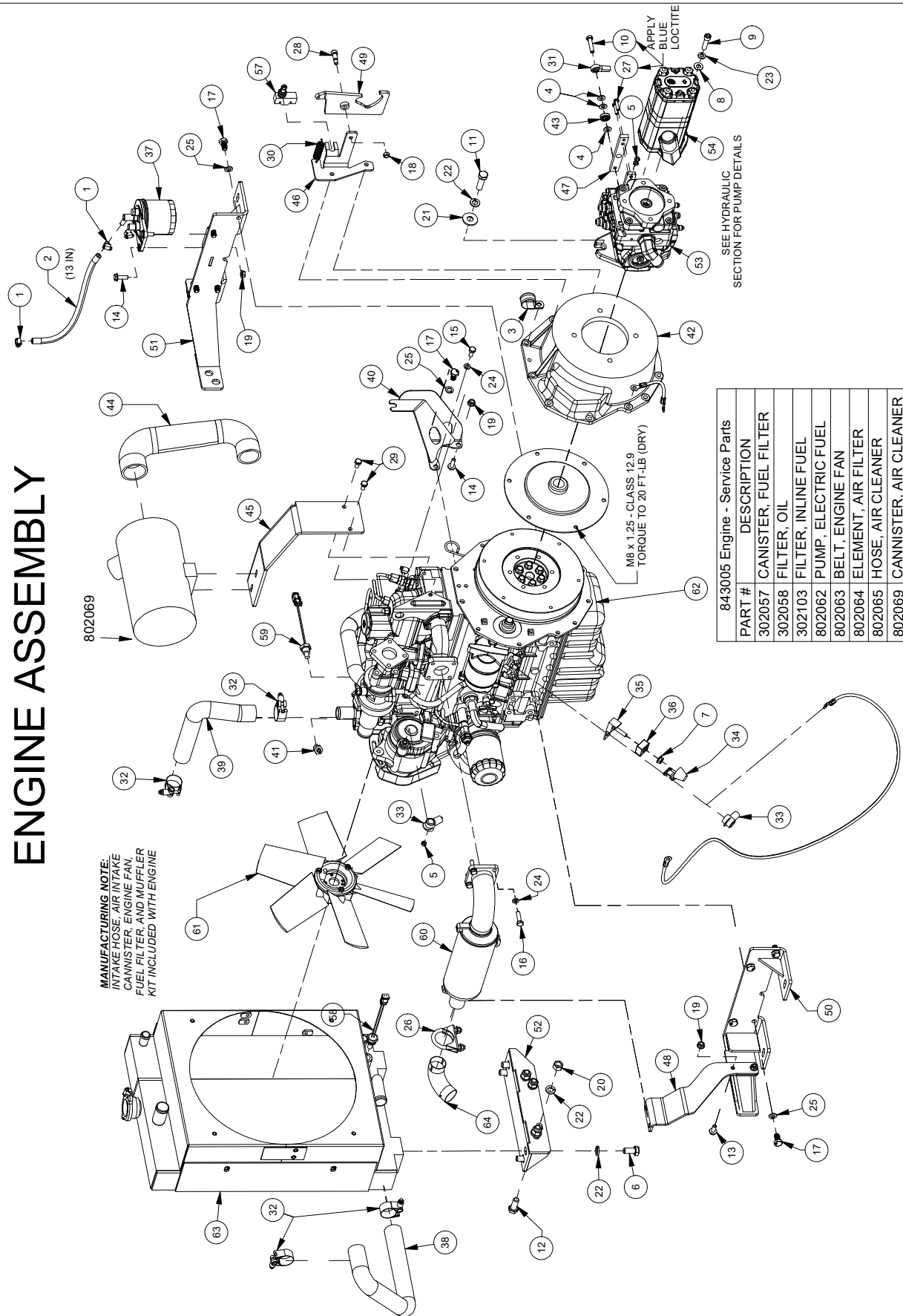


Parts List		
ITEM	QTY	PART # DESCRIPTION
1	1	110070 BOLT, 3/4-10 X 5.0
2	2	110330 BOLT, 3/4-10 X 4.0 GR 5 HEX HEAD
3	2	110378 BOLT, 5/16-18 X 2.0
4	2	110421 BOLT, 5/16-18 X 1-1/4
5	3	110454 BOLT, 3/4-10 X 2.5
6	4	110606 NUT, 5/16-18 WIZ FLANGE
7	6	110625 NUT, 3/4-10, UNITORQUE LOCK
8	2	120220 ADAPTER,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

ASSEMBLY STATION #2: 875002

9/7/2021

ENGINE ASSEMBLY



ENGINE ASSEMBLY

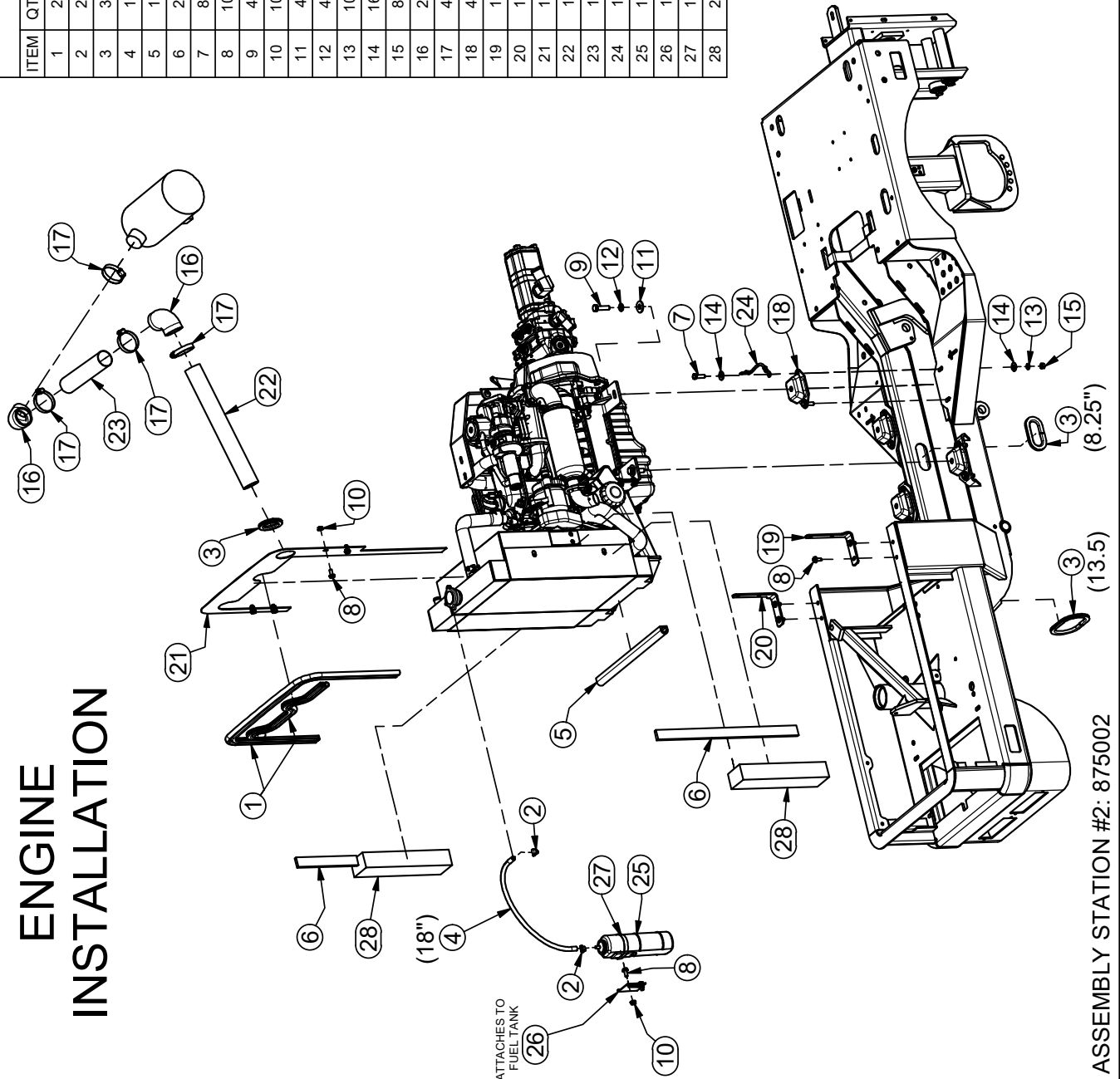
Parts List				Parts List			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	2	100361	CLAMP, HOSE #4 .25 MINI	33	2	132014	INSULATOR CAP. (ALTERNATOR)
2	1	100756	Hose, 5/16 High Pressure Fuel	34	1	132092	FUSE COVER, BUSS CFCOVER-1R
3	1	102074	Clamp, Adel .75w x 1.25id x .406 Hole	35	1	132093	FUSE HOLDER, BUSS CFBAR1-M8XSP
4	3	110069	WASHER, 5/16" FLAT SAE	36	1	132150	FUSE, 50 AMP
5	3	110074	Hex Nut M6 X 1.0 Thd	37	1	302057	CANISTER, FUEL FILTER
6	4	110086	BOLT, 1/2-13 X 1.0	38	1	302151	Formed Hose, Radiator Bottom
7	1	110141	NUT, M8 X 1.25 WIZFLANGE	39	1	302152	Formed Hose, Radiator Top
8	2	110155	WASHER, 3/8" FLAT SAE	40	1	315186	Weldment, Kubota Throttle Mnt
9	2	110178	BOLT, 3/8-16 X 1.5 SHCS	41	1	332004	Sender, Water, 3/8 Npt
10	1	110377	BOLT, 5/16-18 X 1-1/2	42	1	342011	ADAPTER - PUMP, KUBOTA 1505, KIT
11	2	110419	BOLT, 1/2-13 X 1.75	43	1	540079	BEARING, BALL, 1620RS
12	3	110442	BOLT, 1/2-13 X 1.25	44	1	802065	HOSE, AIR CLEANER
13	2	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE	45	1	810826	MOUNT, AIR CLEANER
14	3	110459	BOLT, 5/16-18 X 1, WIZ FLANGE	46	1	810885	BRKT, NEUTRAL CENTERING
15	1	110469	BOLT, M8x1.25 x 20 Gr 10.9	47	1	810888	BRKT, PUMP LEVER
16	4	110486	BOLT, M8x1.25 x 30 Gr 10.9	48	1	810900	SUPPORT, EXHAUST
17	9	110560	BOLT, M10-1.25 X 20 HHCS 8.8 PLAIN	49	1	815096	WELDMENT, NEUTRAL CENTERING
18	2	110600	NUT, 5/16-18, UNITORQUE LOCK	50	1	815097	WELDMENT, LH ENG/RAD MOUNT
19	3	110606	NUT, 5/16-18 WIZ FLANGE	51	1	815098	WELDMENT, RH ENG/RAD MOUNT
20	3	110610	NUT, 1/2-13	52	1	815099	WELDMENT, RADIATOR MOUNT
21	2	110658	WASHER, 1/2" FLAT STANDARD	53	1	823024	PUMP, PM10 PROP 1.24 CI/.43 CI
22	9	110666	WASHER, 1/2" LOCK	54	1	823025	PUMP, DOUBLE GEAR 1.16 CI / .49 CI
23	2	110672	WASHER, 3/8" LOCK	55	1	830063	CABLE, POSITIVE BATTERY
24	5	110674	WASHER, 5/16" LOCK	56	1	832001	CABLE, GROUND
25	5	110689	WASHER, 10mm LOCK	57	1	832002	SWITCH ROLLER PLUNGER
26	1	110779	CLAMP, 1 1/2" EXHAUST	58	1	832076	Switch, 190 F Temp, 8MB, N.C. Rising
27	2	110931	BOLT, M6x1 x 25 Gr 8.8	59	1	832079	SWITCH, 215 F TEMP, 6MP, N.O. RISING
28	1	111070	BOLT, 3/8 X .625 SHOULDER SHCS	60	1	842017	MUFFLER KIT, KUBOTA C31
29	2	111089	BOLT, M8x1.25 x 16 Gr 8.8	61	1	842018	FAN, ENGINE COOLING
30	1	111149	SPRING, TENSION .625 x .069 x 3.0	62	1	843005	ENGINE, KUBOTA V1505 TIER 4F (25hp)
31	2	111150	ROD END, 5/16-24 RH, FEMALE	63	1	843006	COOLING PACKAGE, RADIATOR & OIL
32	4	112101	CLAMP, 1.50", T-BOLT	64	1	942204	EXHAUST ELBOW 1 3/8

ASSEMBLY STATION #2: 875002

1/26/2024

ENGINE INSTALLATION

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

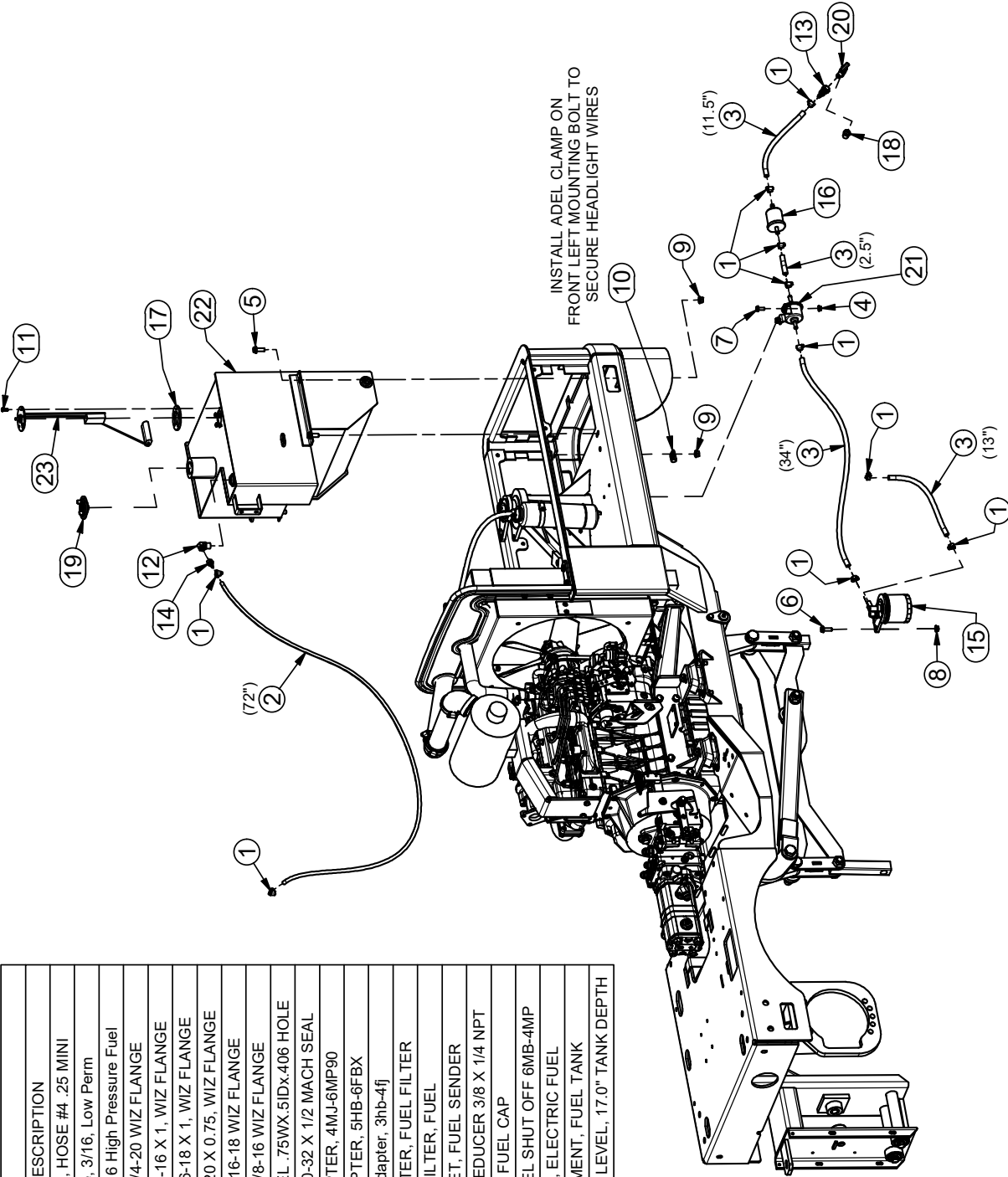


ASSEMBLY STATION #2: 875002

4/26/2019

FUEL TANK INSTALLATION

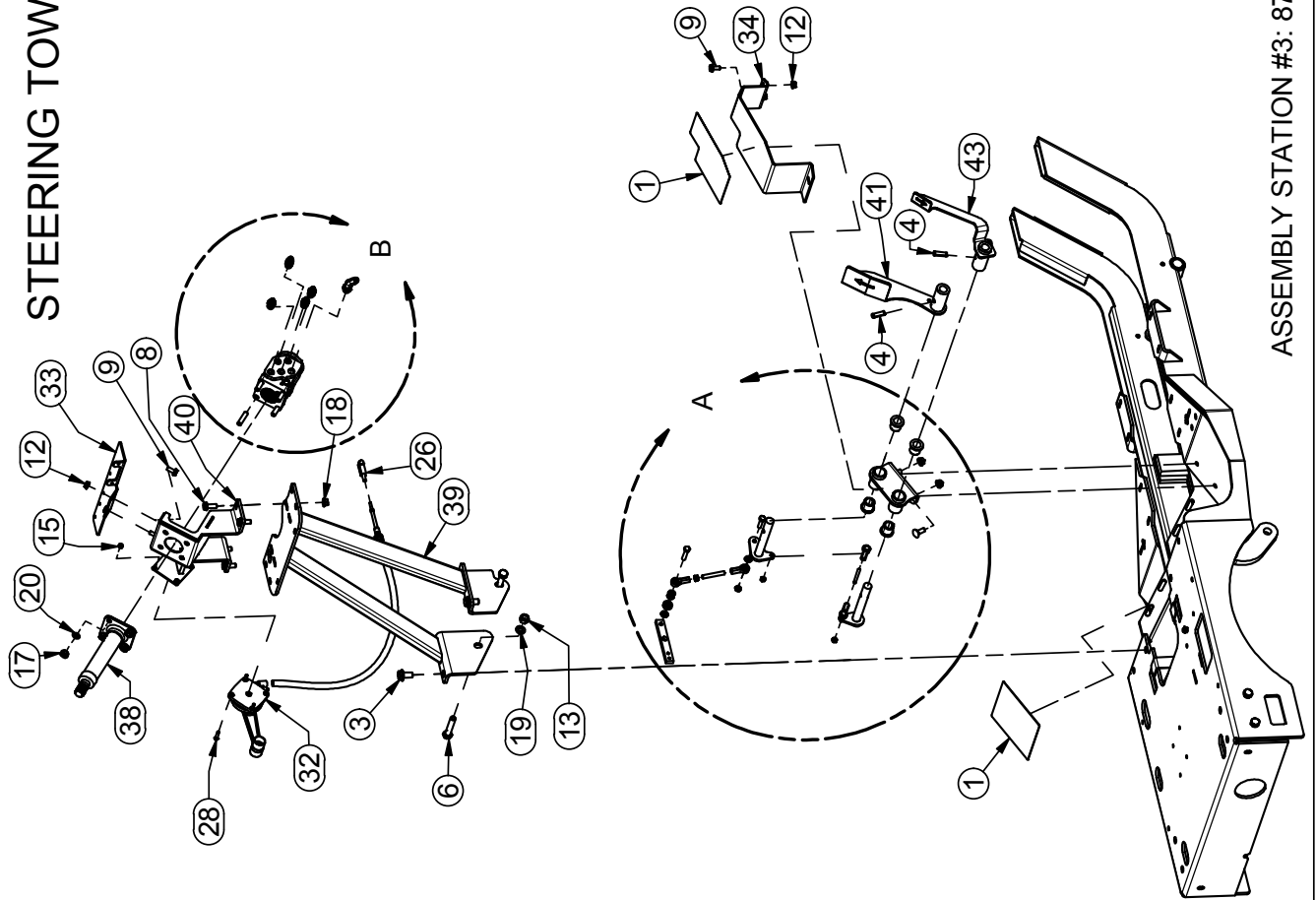
Parts List			DESCRIPTION
ITEM	QTY	PART #	DESCRIPTION
1	10	100361	CLAMP, HOSE #4 .25 MINI
2	1	100708	Hose, 3/16, Low Perm
3	4	100756	Hose, 5/16 High Pressure Fuel
4	2	110290	NUT, 1/4-20 WIZ FLANGE
5	4	110440	BOLT, 3/8-16 X 1, WIZ FLANGE
6	2	110459	BOLT, 5/16-18 X 1, WIZ FLANGE
7	2	110468	BOLT, 1/4-20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



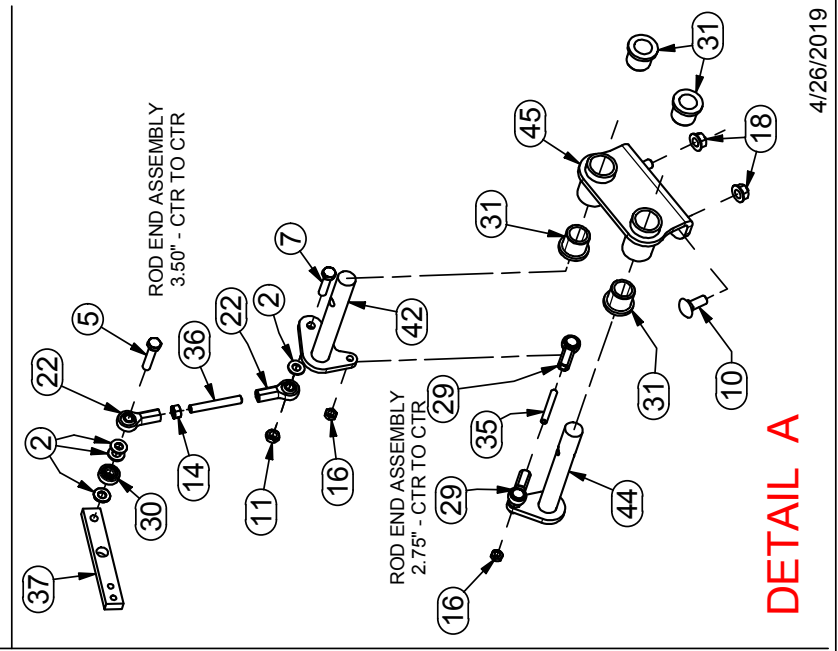
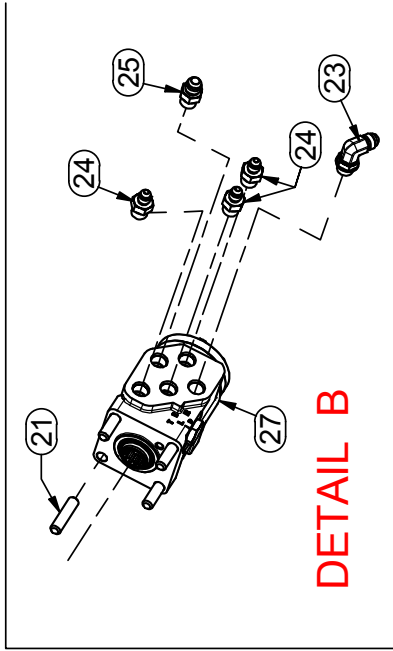
ASSEMBLY STATION #2: 875002

10/14/2022

STEERING TOWER & FOOT PEDAL INSTALLATION



ASSEMBLY STATION #3: 875003



4/26/2019

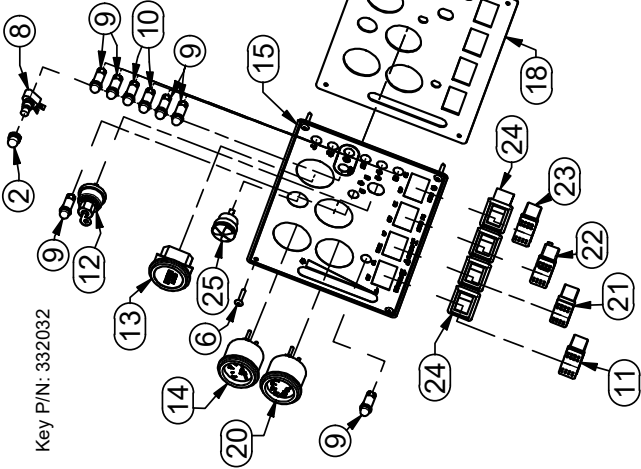
STEERING TOWER & FOOT PEDAL INSTALLATION

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

ASSEMBLY STATION #3: 875003

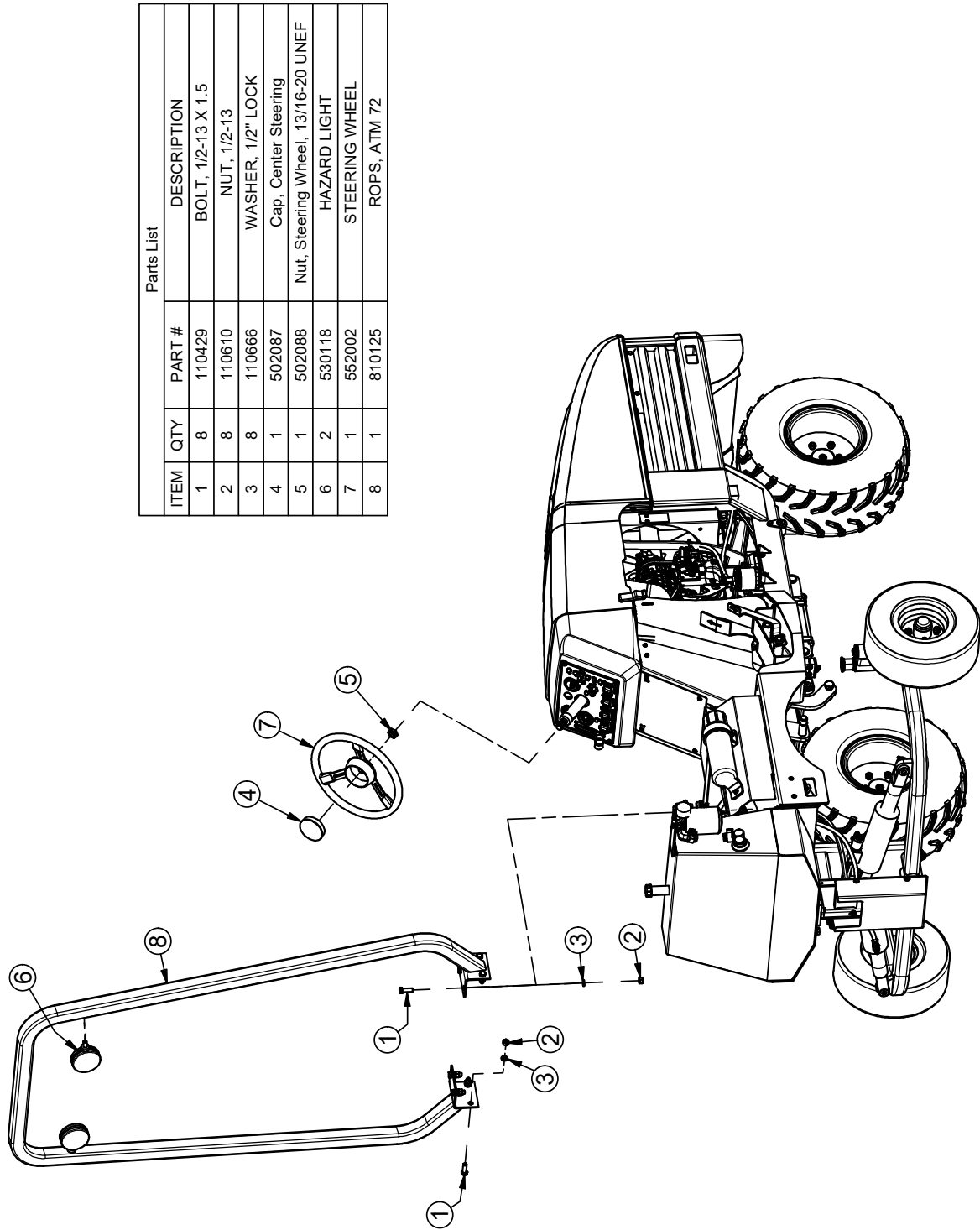
4/26/2019

CONSOLE ASSEMBLY



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

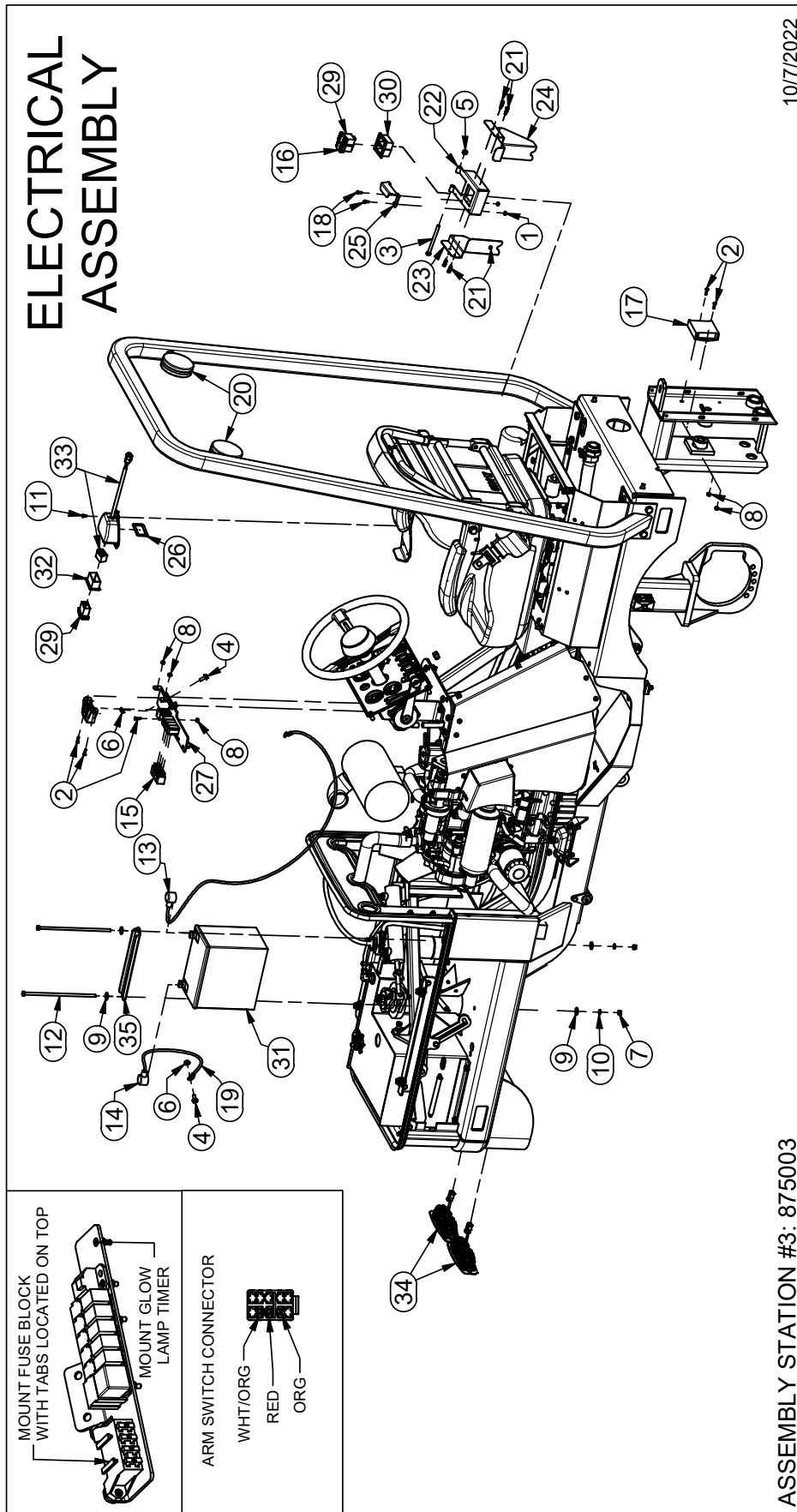
ROPS & STEERING WHEEL INSTALLATION



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

ASSEMBLY STATION #4: 875004

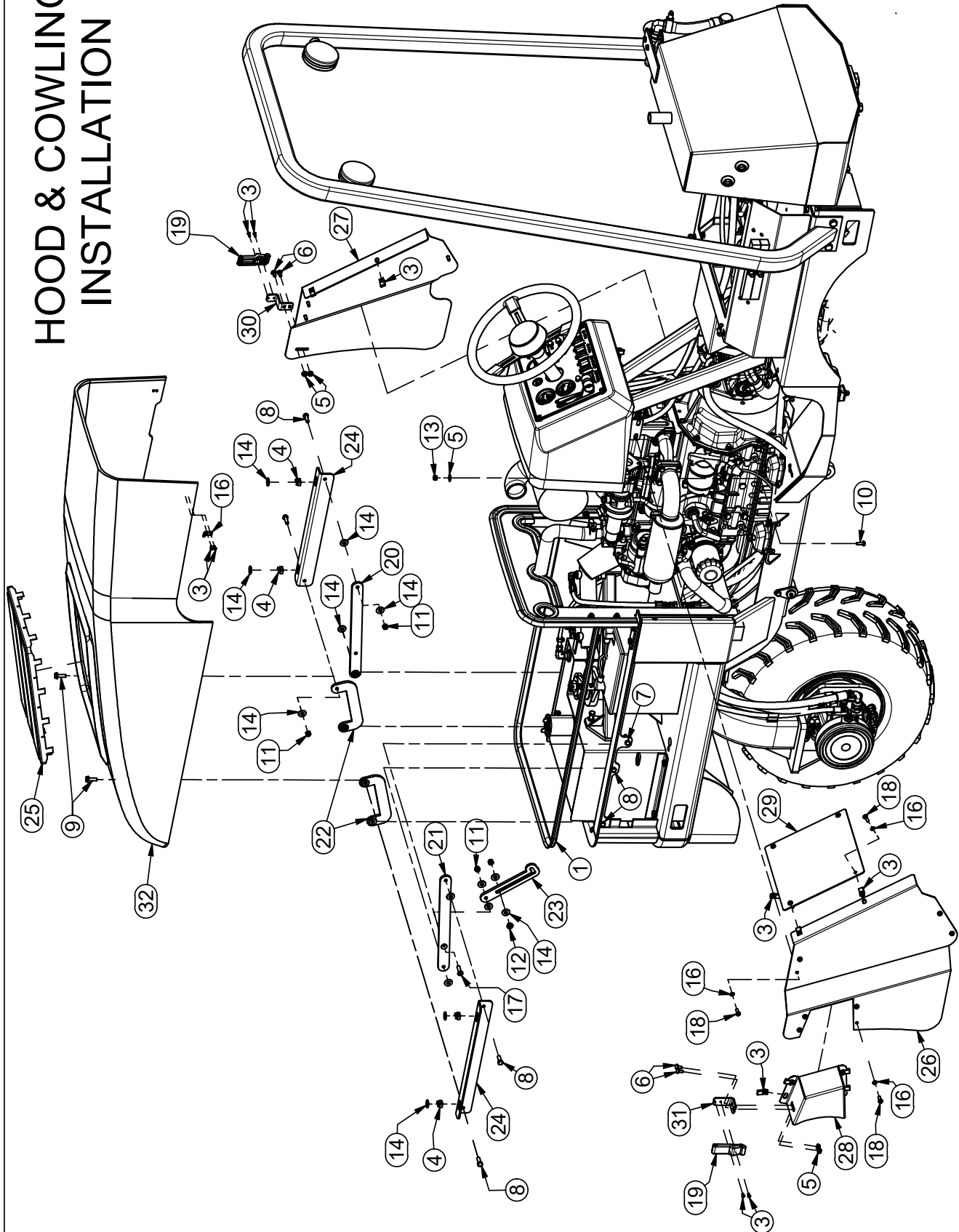
2/25/2019



ASSEMBLY STATION #3: 875003

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

HOOD & COWLING INSTALLATION



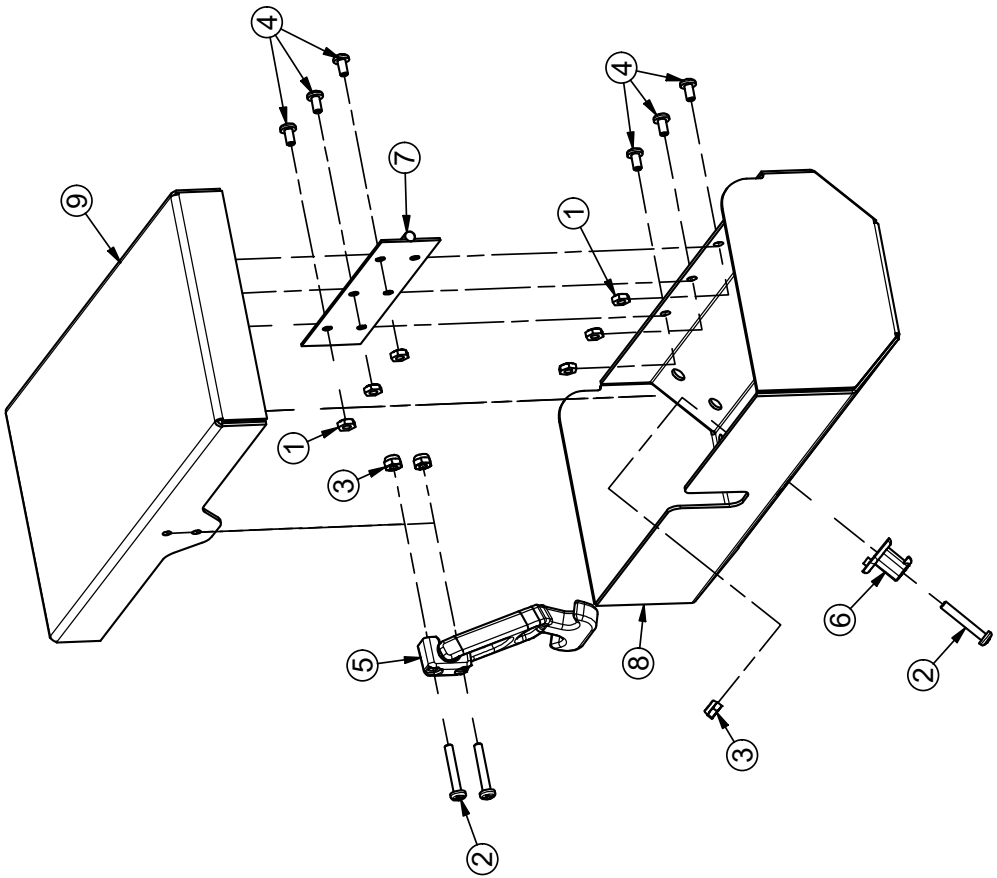
ASSEMBLY STATION #4: 875004

11/23/2022

HOOD & COWLING INSTALLATION

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

TOOLBOX ASSEMBLY - 805017

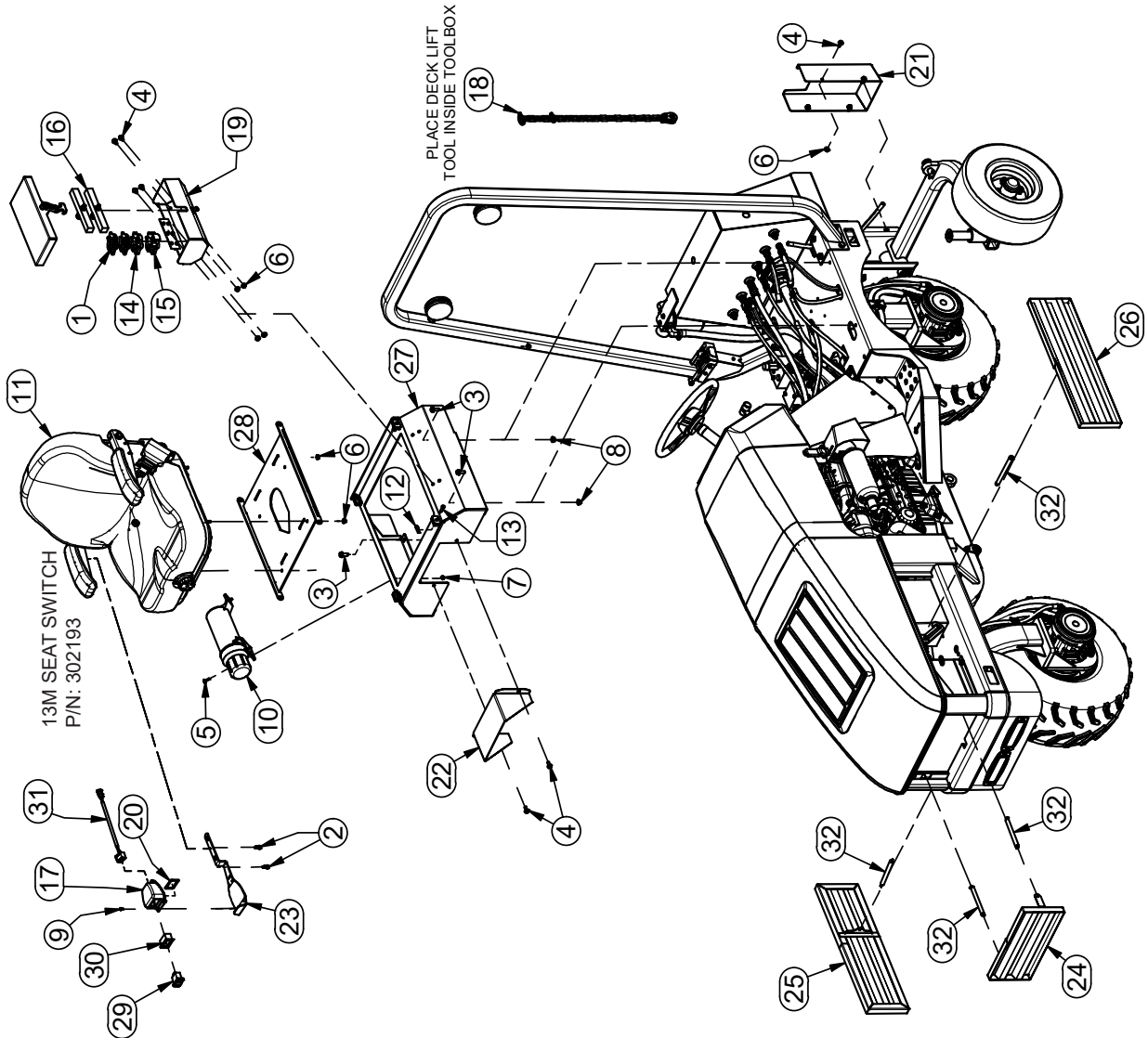


Parts List			Parts List	
ITEM	QTY	PART #	DESCRIPTION	
1	2	110155	WASHER, 3/8" FLAT SAE	
2	2	110425	BOLT, 3/8-16 X 1.25	
3	2	110621	NUT, 3/8-16, UNITORQUE LOCK	
4	1	411287	Pin, Lynch 5/16 x 1 3/4	
5	2	810889	BRKT, DECK LIFT	
6	1	970304	CHAIN, 1/4 COIL	

2/26/2019

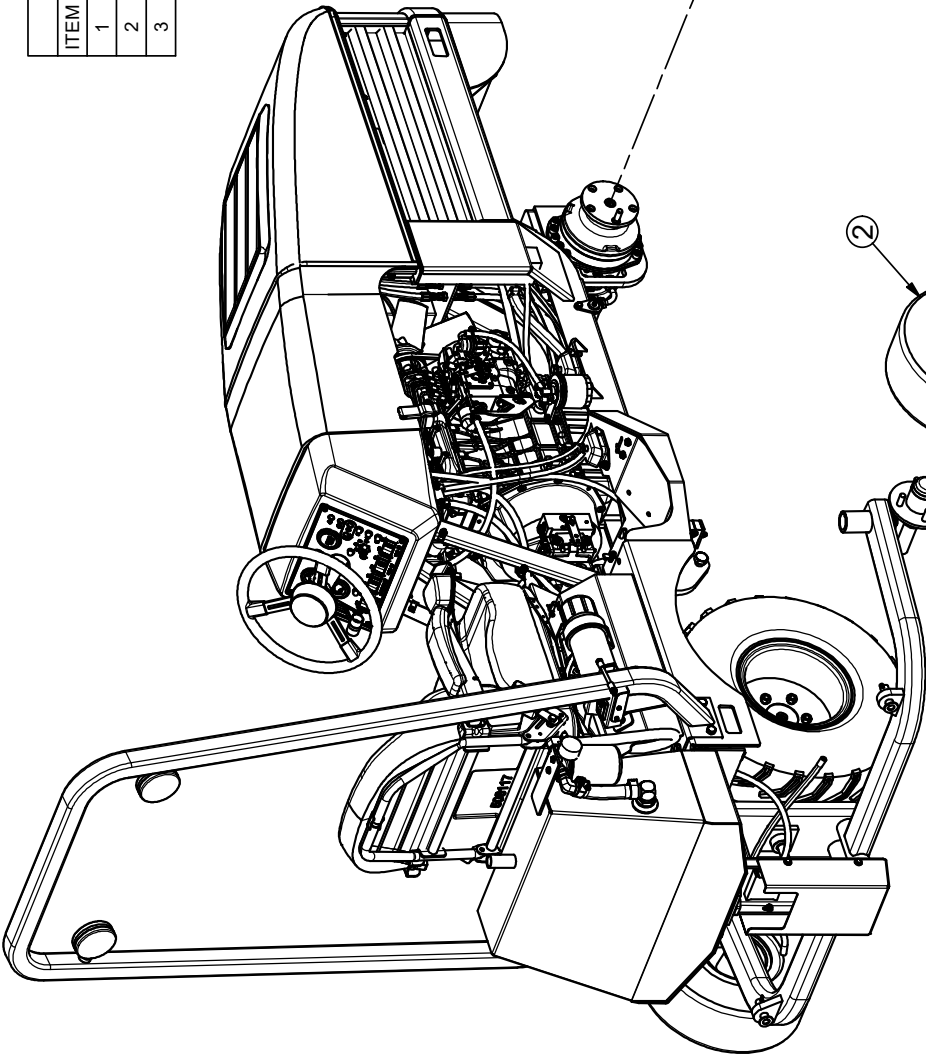
Parts List			Parts List		
ITEM	QTY	PART #	DESCRIPTION		
1	6	110119	NUT, 10-24 LOCK		
2	3	110339	SCREW, 10-24X1.25 PAN HEAD PHPS		
3	3	110631	NUT, 10-24 LOCK NYLON INSERT		
4	6	110788	BOLT, 10-24 X .375 STAINLESS, PHILLIPS		
5	1	112105	LATCH, RUBBER T-HANDLE DRAW		
6	1	112106	Keeper, Draw Latch		
7	2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

SEAT & SCREENS INSTALLATION



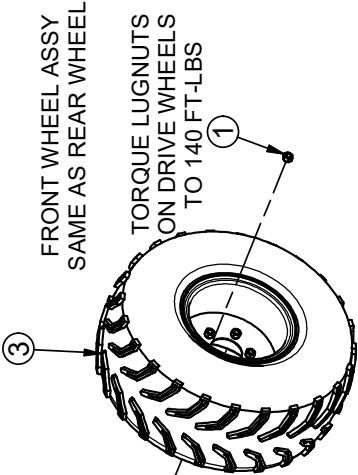
Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	2	102077	CYLINDER STOP, 1/4" THICK
2	2	110199	SCREW, 1/4-20 X .75, WH SELF TAP
3	4	110440	BOLT, 3/8-16 X 1, WIZ FLANGE
4	10	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE
5	3	110468	BOLT, 1/4-20 X 0.75, WIZ FLANGE
6	12	110606	NUT, 5/16-18 WIZ FLANGE
7	3	110630	NUT,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

WHEEL & TIRE INSTALLATION



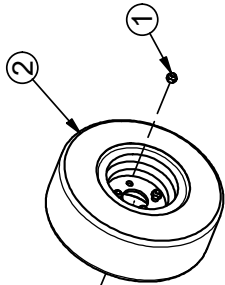
Parts List		
ITEM	QTY	DESCRIPTION
1	10	LUGNUT, 1/2-20 GR 5
2	2	FILLED STABILIZER TIRE ASSEMBLY
3	2	TIRE & WHEEL ASSY, 72LC

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



FRONT WHEEL ASSY
SAME AS REAR WHEEL

TORQUE LUGNUTS
ON DRIVE WHEELS
TO 140 FT-LBS



TORQUE LUGNUTS
ON STABILIZER WHEELS
TO 72 FT-LBS

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

Parts List				Parts List				Parts List			
Item	Qty	Part #	Description	Item	Qty	Part #	Description	Item	Qty	Part #	Description
1	2	102119	Level, Surface Mount	6	2	110272	Bolt, 3/4-10 X 6.75, Hhcs	11	8	110440	Bolt, 3/8-16 X 1, Wiz Flange
2	5	110020	Bolt, 5/16-18 X 0.75 In Carriage	7	2	110283	Plug, 7/16", Nylon, Snap Lock	12	2	110442	Bolt, 1/2-13 X 1.25
3	4	110051	Bolt, 1/2-20 X 1.5, Gr8	8	4	110344	Screw, 8-32x1.5 Pan Head Phps	13	5	110606	Nut, 5/16-18 Wiz Flange
4	4	110067	Screw, 1/4-20 X .50 Slot Flat-Hd	9	4	110345	Nut, 8-32 Lock Nylon	14	12	110615	Nut, 1/2-13, Unitorque Lock
5	2	110220	Bolt, 1/2-13 X 1, Wiz Flange	10	12	110379	Bolt, 1/2-13 X 2.0	15	2	110625	Nut, 3/4-10, Unitorque Lock
								16	4	110635	Nut, 1/2-20, Unitorque Lock
								17	8	110645	Nut, 3/8-16 Wiz Flange
								18	16	110660	Washer, 1/2 Flat Special 1.5 Od
								19	2	110670	Washer, 7/16" Flat Standard
								20	2	110681	Washer, 1/2 Ext. Tooth Lock
								21	2	110700	Roll Pin, 1/4 X 0.75
								22	4	111013	Washer, M5 Flat Stainless
								23	2	120235	Adapter, 4mj-4mb90
								24	4	120251	Adapter, 10mj-10mb
								25	2	200028	Roll Pin, 1/4 X 1.5
								26	2	510228	Key, 1/4 X 1/4 X 1.0 In
								27	2	510403	Roll Pin, 3/16 X 0.75
								28	2	510962	Pin, Wire Lock
								29	2	511134	Blade, Right
								30	2	511135	Blade, Left
								31	4	511136	Bushing, Blade Mount
								32	2	800093	Caster Wheel Assy
								33	2	800124	Bushing, Mfi-1620-24
								34	2	802001	Cover, Vinyl, 1/2 Rnd X 6.0
								35	2	802004	Bushing, Msi-1620-16
								36	2	810278	Plastic Bumper, Motor Guard
								37	2	810358	Hub, Blade Mount Machined
								38	2	810360	Washer, Blade Mount
								39	2	810361	Blade Mount
								40	2	810364	Blade Saddle
								42	1	810392	Crank, Caster Height, Left
								43	2	810393	Crank Pivot
								44	1	810404	Deck Weldment, Right
								45	1	810405	Deck Weldment, Left
								46	1	810919	Shield, Outer Foot
								47	1	810920	Shield, Rear Foot
								48	2	812001	Cap, Dust
								49	2	815002	Caster Yoke Weld Assy
								50	2	815003	Adjustment Screw Weld Assy
								51	1	815005	Caster Arm Weld Assy, Left
								52	1	815006	Caster Arm Weld Assy, Right
								53	2	823016	Motor, Deck, Bi-Directional, 1.65 Ci

DECK ASSEMBLY

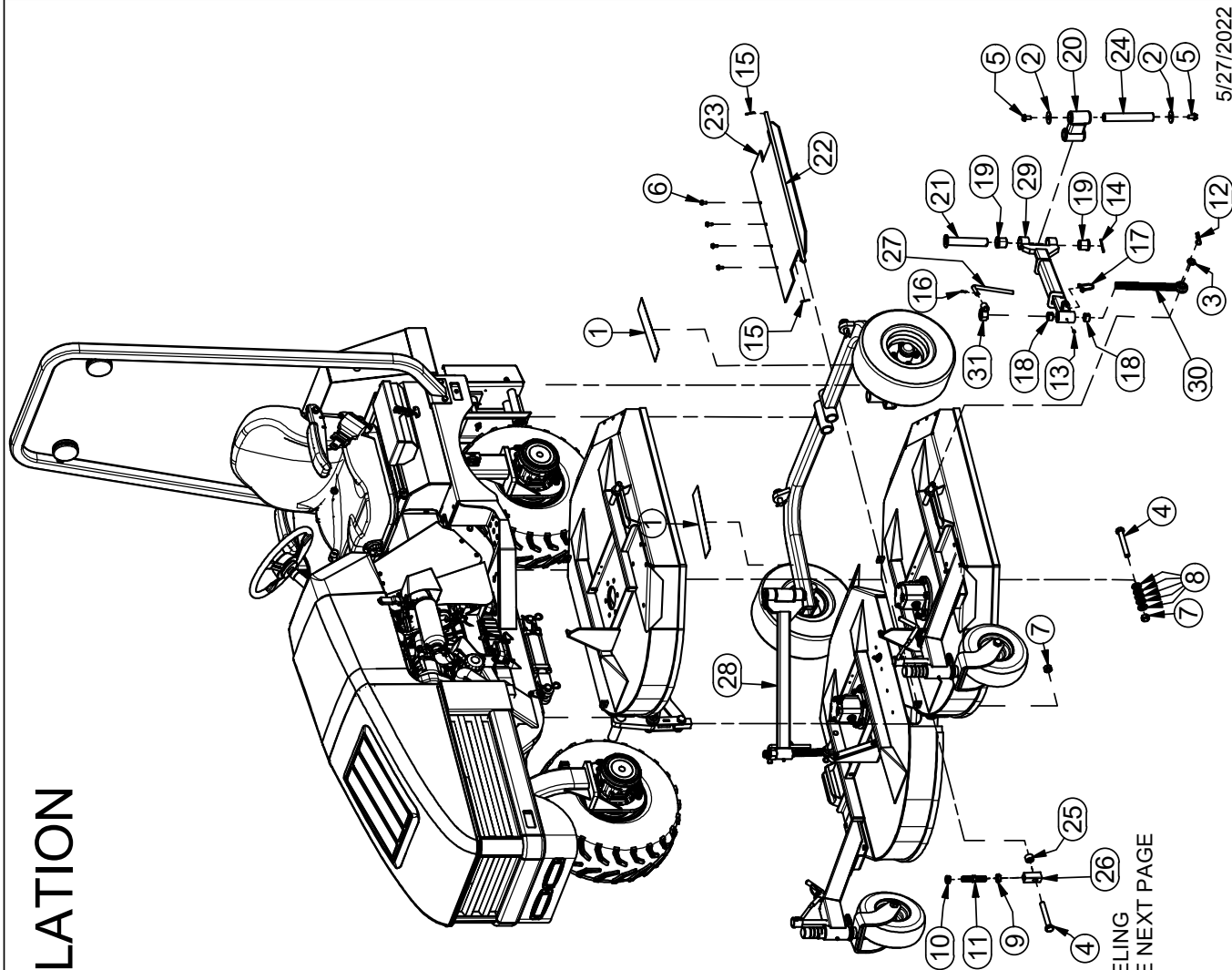
GREASE ZERK FACES
TO OUTSIDE OF WHEEL

BLADE SADDLE KIT 810365	
ITEM	DESCRIPTION
1	BOLT, 1/2-13 X 1.25
2	WASHER, 1/2 EXT. TOOTH LOCK
3	ROLL PIN, 1/4 X 0.75
4	HUB, BLADE MOUNT MACHINED
5	WASHER, BLADE MOUNT
6	BLADE MOUNT
7	BLADE SADDLE

ASSEMBLY STATION #4: 875004

DECK INSTALLATION

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



SEE DECK LEVELING
INSTRUCTIONS ON THE NEXT PAGE

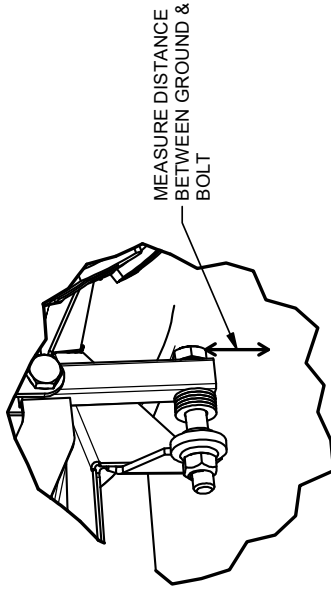
ASSEMBLY STATION #4: 875004

5/27/2022

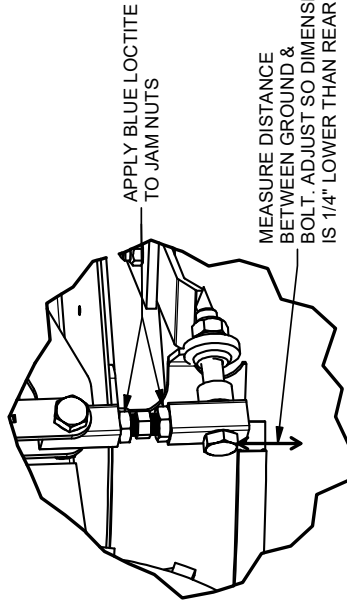
DECK INSTALLATION - SETTING THE DECK RAKE AND HEIGHT

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.

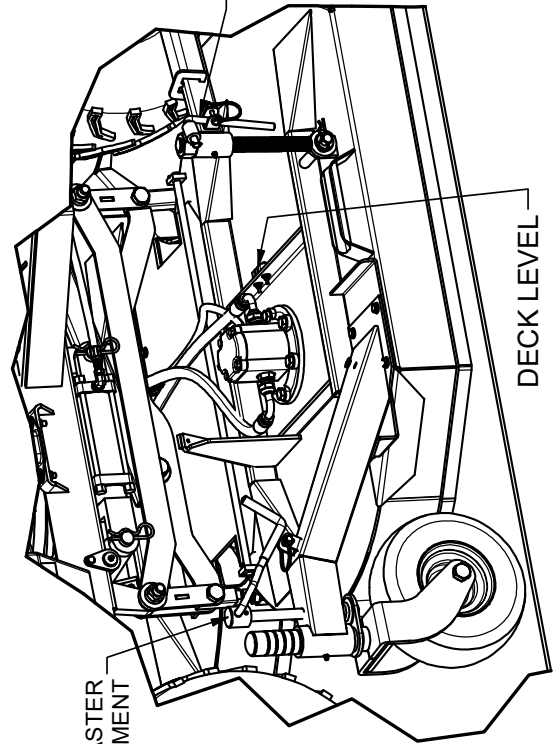
REAR DECK
MOUNTING BOLT



FRONT DECK MOUNTING
BOLT & TURNBUCKLE

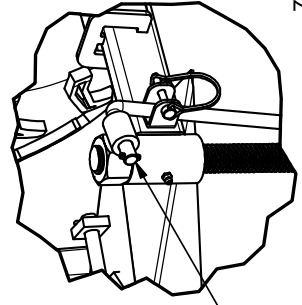


FRONT CASTER
WHEEL ADJUSTMENT



OUTER DECK WING
ADJUSTMENT

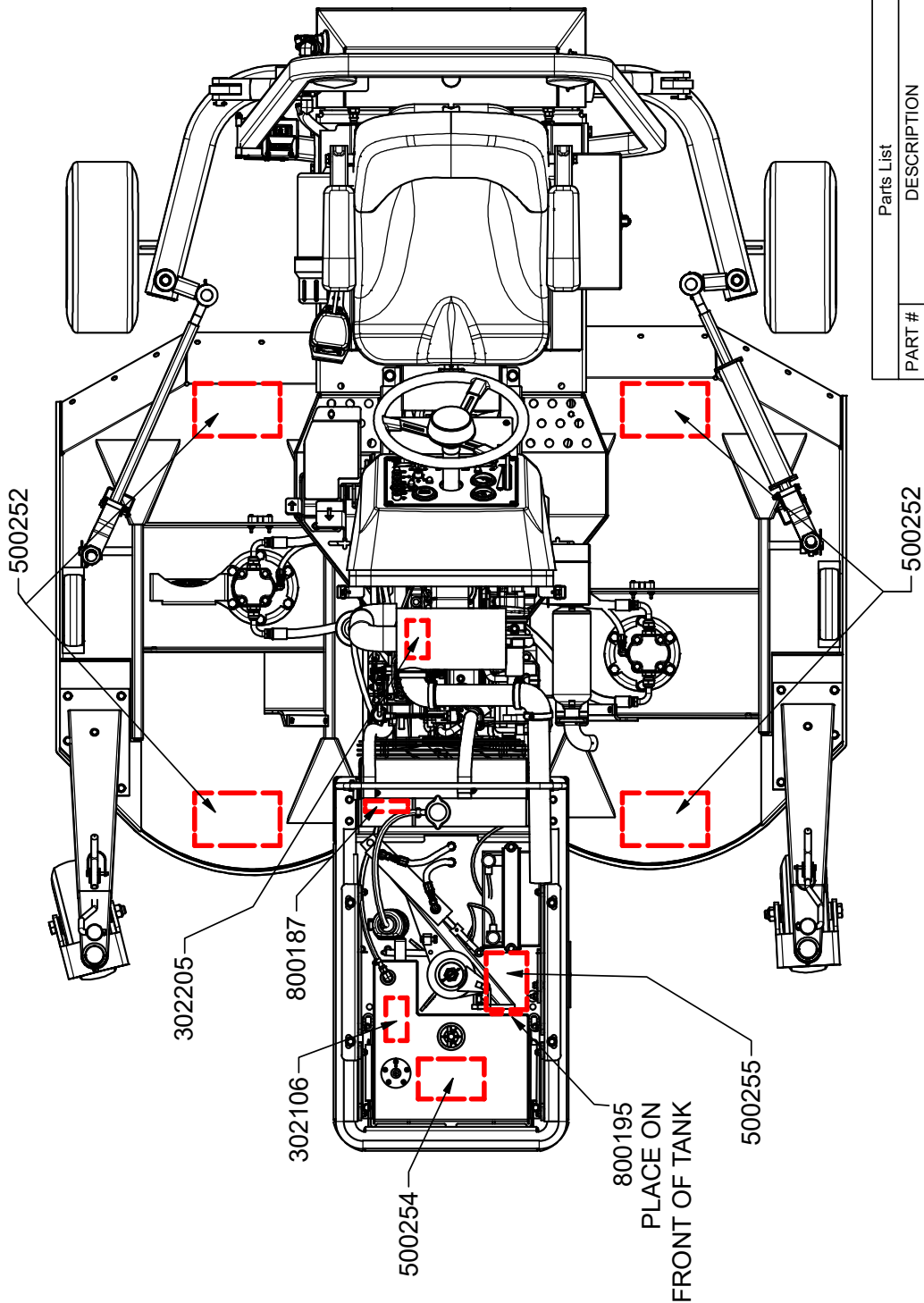
OUTER DECK
WING ADJUSTMENT



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

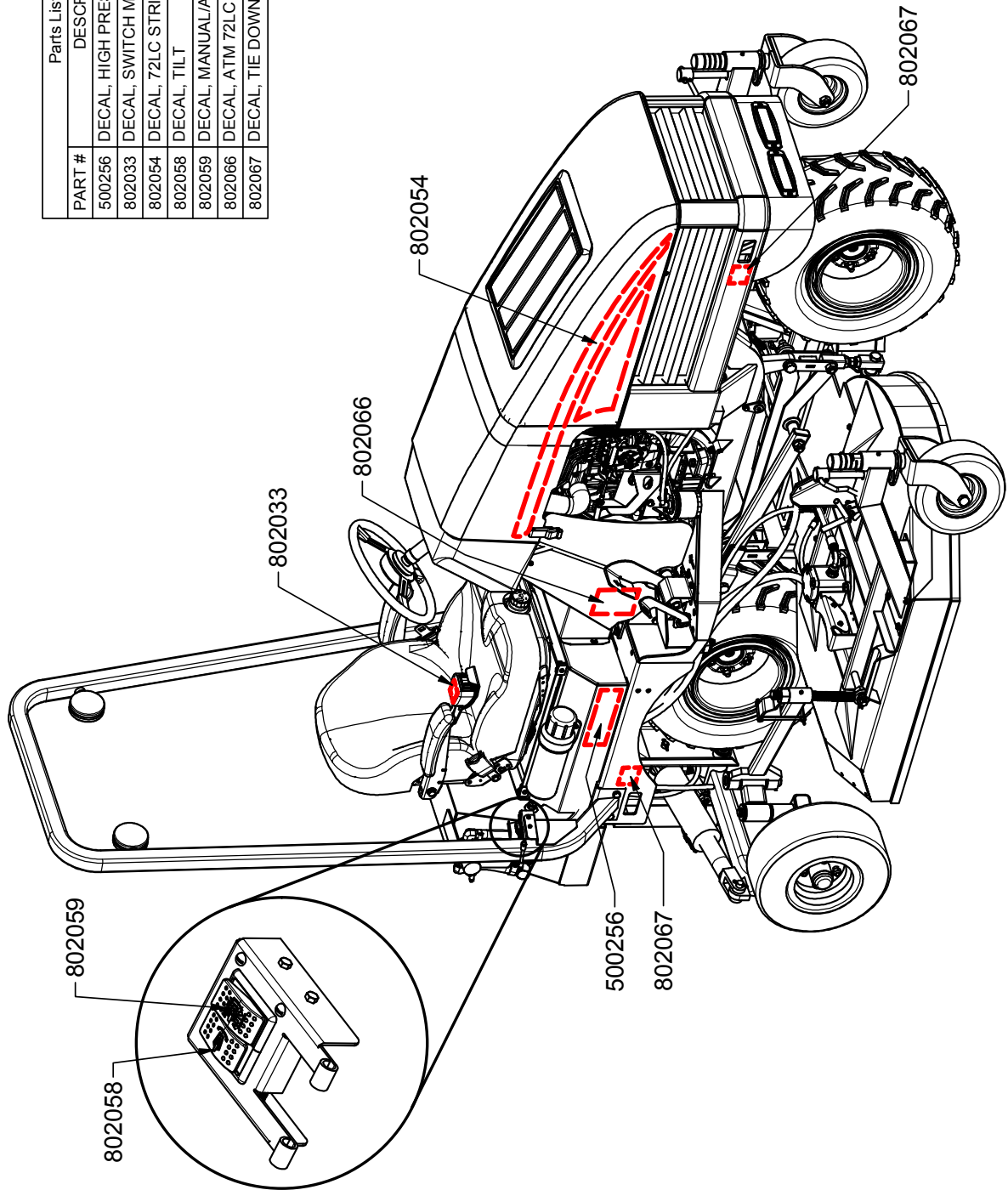


Parts List	
PART #	DESCRIPTION
302106	DECAL, DIESEL FUEL
302205	DECAL, EPA STANDARDS TIER 4
500252	DECAL, DANGER, ROTATING BLADES
500254	DECAL, FUEL
500255	DECAL, BATTERY
800187	DECAL, SERVICE RADIATOR
800195	DECAL, RECYCLE BATTERY

ASSEMBLY STATION #4: 875004

6/13/2024

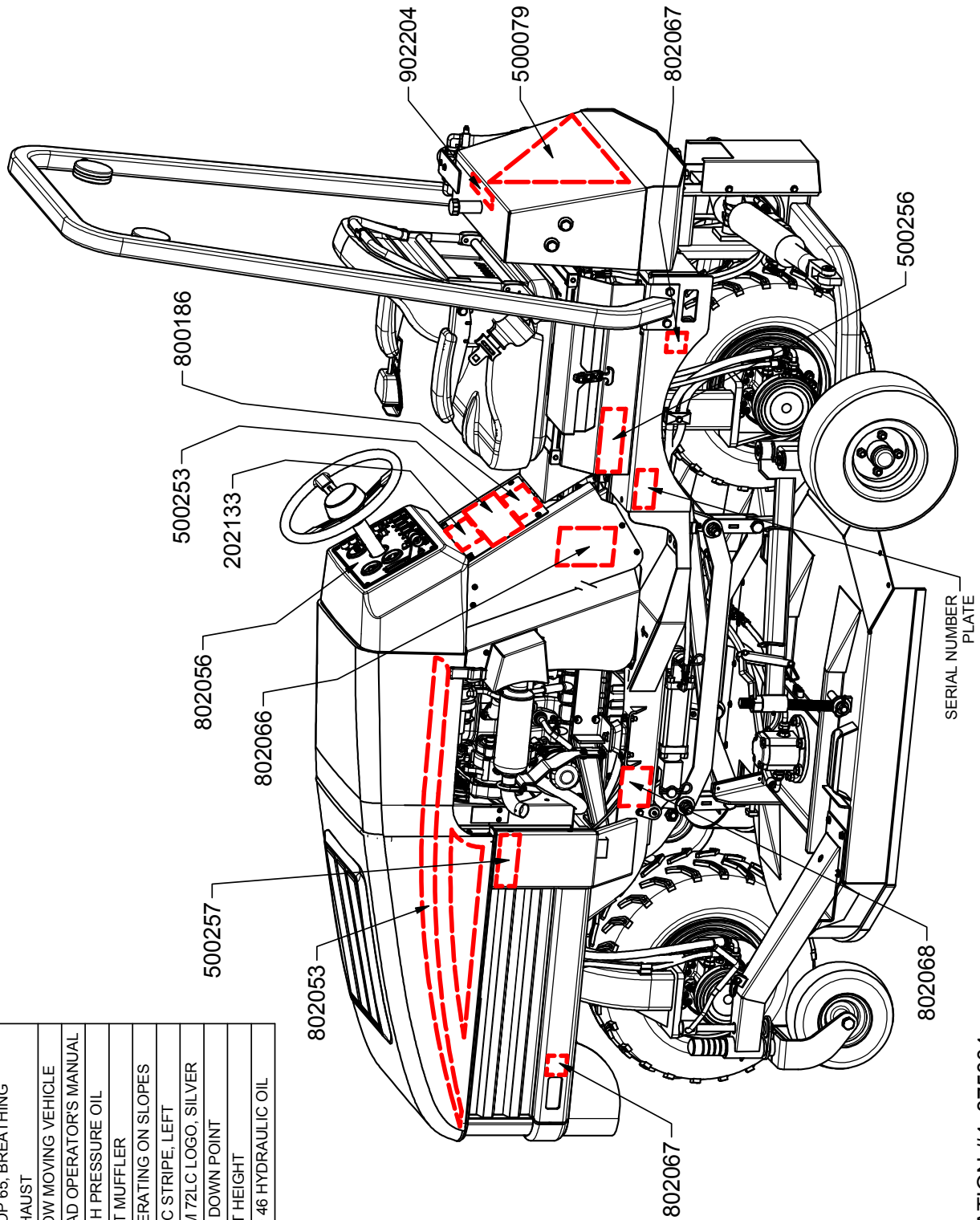
DECAL LAYOUT - RH SIDE



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

DECAL LAYOUT - LH SIDE

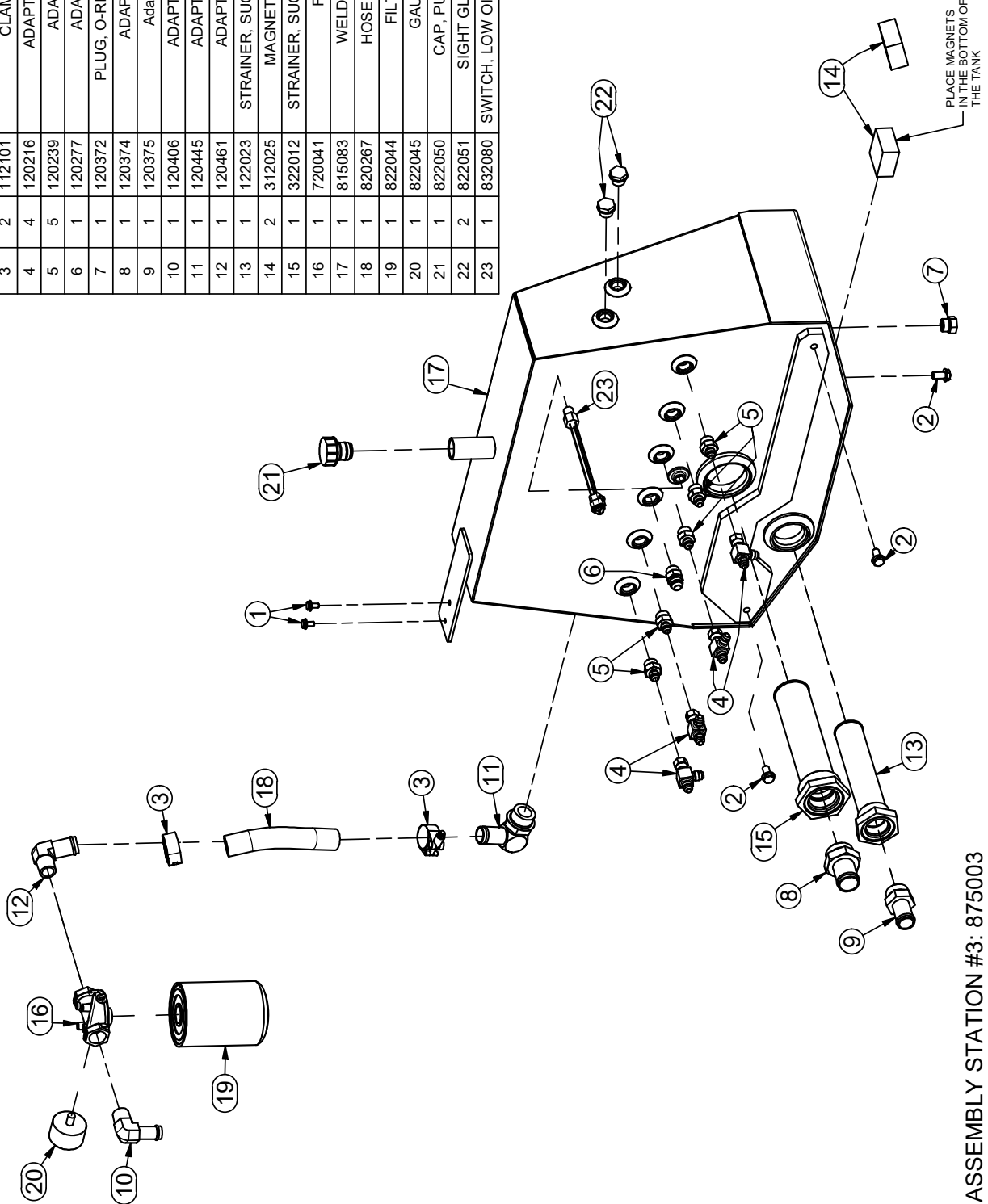
Parts List	
PART #	DESCRIPTION
202133	DECAL, PROP 65, BREATHING DIESEL EXHAUST
500079	DECAL, SLOW MOVING VEHICLE
500253	DECAL, READ OPERATOR'S MANUAL
500256	DECAL, HIGH PRESSURE OIL
500257	DECAL, HOT MUFFLER
800186	DECAL, OPERATING ON SLOPES
802053	DECAL, 72LC STRIPE, LEFT
802066	DECAL, ATM 72LC LOGO,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



ASSEMBLY STATION #4: 875004

3/4/2019

HYDRAULIC TANK ASSEMBLY

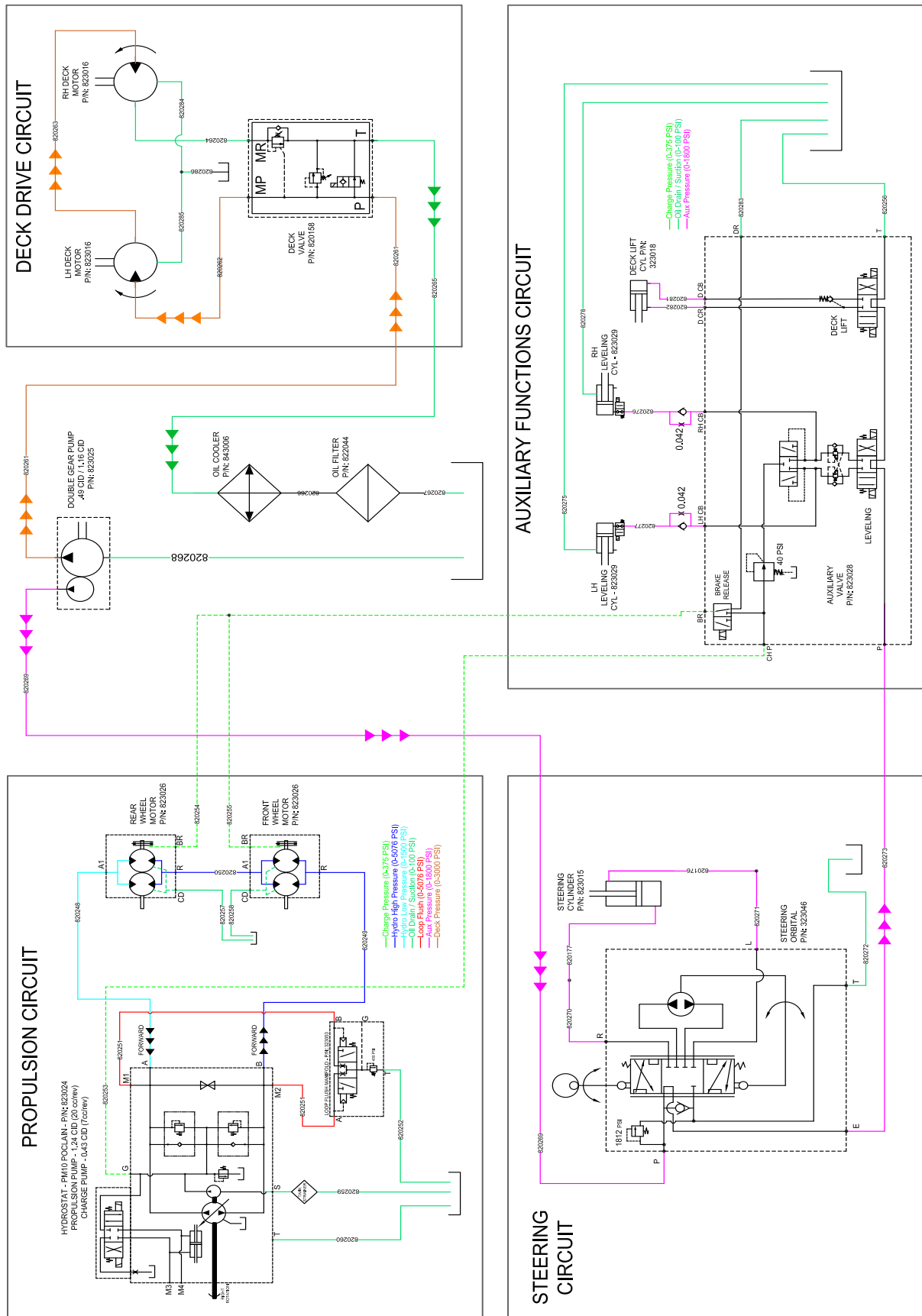


ASSEMBLY STATION #3: 875003

3/8/2018

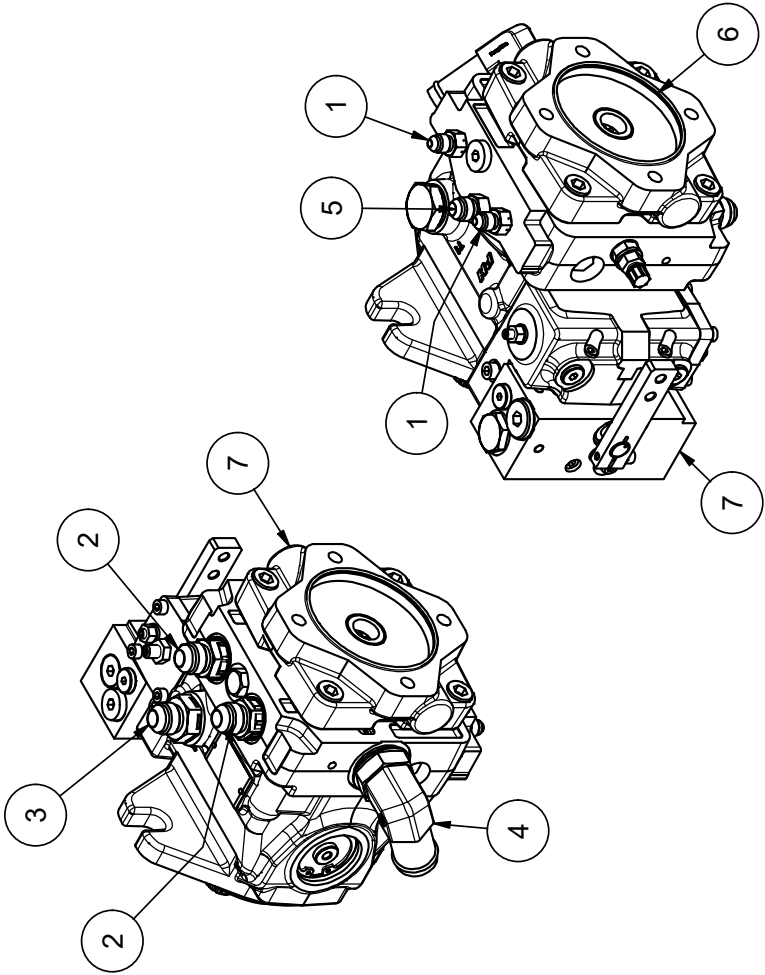
Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	2	110434	BOLT, 1/4-20 X 0.5, WIZ FLANGE
2	3	110437	BOLT, 3/8-16 X 0.75, WIZ FLANGE
3	2	112101	CLAMP, 1.50", T-BOLT
4	4	120216	ADAPTER, 6MJ-6FJX-6MJ
5	5	120239	ADAPTER, 6MJ-8MB
6	1	120277	ADAPTER, 8MJ-8MB
7	1	120372	PLUG, O-RING-8, EXTERNAL HEX
8	1	120374	ADAPTER,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

72LC Hydraulic Schematic



12/7/18

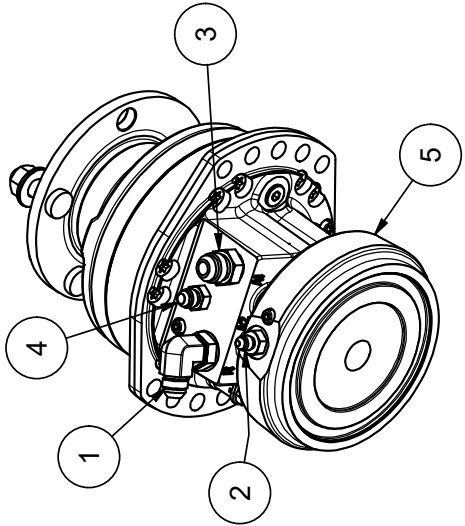
PROPULSION PUMP
ASSEMBLY



Parts List			DESCRIPTION
ITEM	QTY	PART #	
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 C/I/43 CI

ASSEMBLY STATION #3: 875003

WHEEL MOTOR
ASSEMBLY



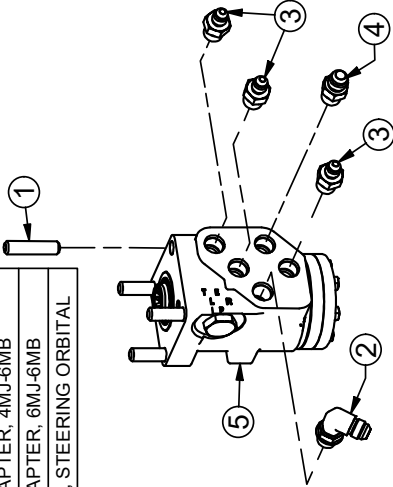
Parts List			DESCRIPTION
ITEM	QTY	PART #	
1	1	120245	ADAPTER, 8MJ-10MB90
2	1	120249	ADAPTER, 4MJ-6MB
3	1	120251	ADAPTER, 10MJ-10MB
4	1	120319	ADAPTER, 6MJ-6MB
5	1	823026	MOTOR, WHEEL 30.5 CI

6/25/2021

VALVE ASSEMBLIES

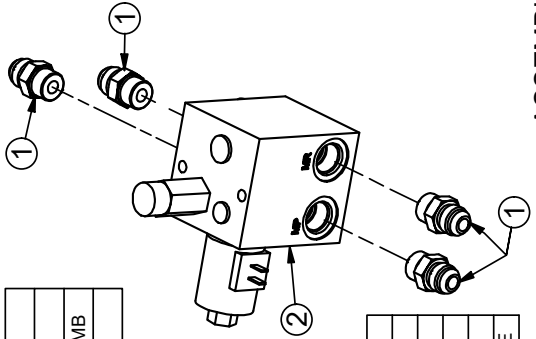
STEERING ORBITAL ASSEMBLY

Parts List		
ITEM	QTY	DESCRIPTION
1	4	STUD, M10 X 1.5 X 42 GRADE 8.8
2	1	ADAPTER, 6MJ-6MB90
3	3	ADAPTER, 4MJ-6MB
4	1	ADAPTER, 6MJ-6MB
5	1	MOTOR, STEERING ORBITAL



DECK VALVE ASSEMBLY

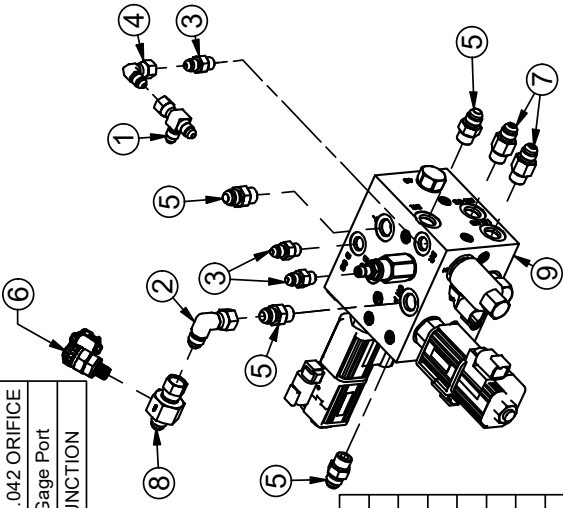
Parts List		
ITEM	QTY	DESCRIPTION
1	4	ADAPTER, 10MJ-10MB
2	1	DECK VALVE



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	

AUXILIARY VALVE ASSEMBLY

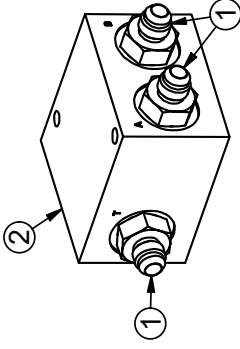
Parts List		
ITEM	QTY	DESCRIPTION
1	1	ADAPTER, 4MJ-4FJX-4MJ
2	1	ADAPTER, 6MJ-6FJX90
3	5	ADAPTER, 4MJ-4MB
4	1	ADAPTER, 4MJ-4FJX90
5	7	ADAPTER, 6MJ-6MB
6	1	Test Port, M16, 4MB
7	2	VALVE, CHECK, 6MB-6MJ, .042 ORIFICE
8	1	Adapter, 6fjx-6mj, -4fb Gage Port
9	1	VALVE, AUXILIARY FUNCTION



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	

LOOP FLUSH VALVE ASSEMBLY

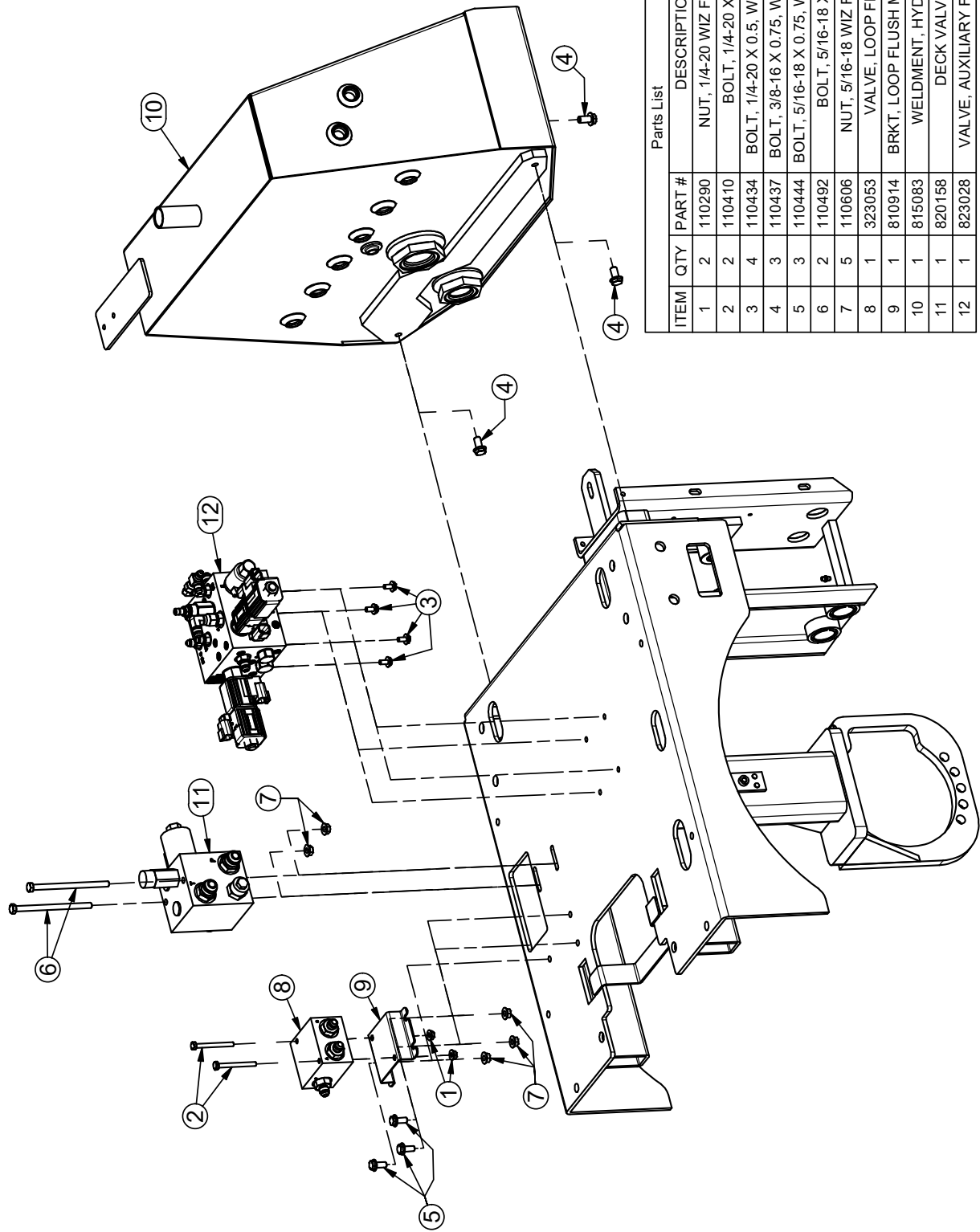
Parts List		
ITEM	QTY	DESCRIPTION
1	3	ADAPTER, 6MJ-8MB
2	1	VALVE, LOOP FLUSH



ASSEMBLY STATION #3: 875003

6/25/2021

VALVE & TANK INSTALLATION

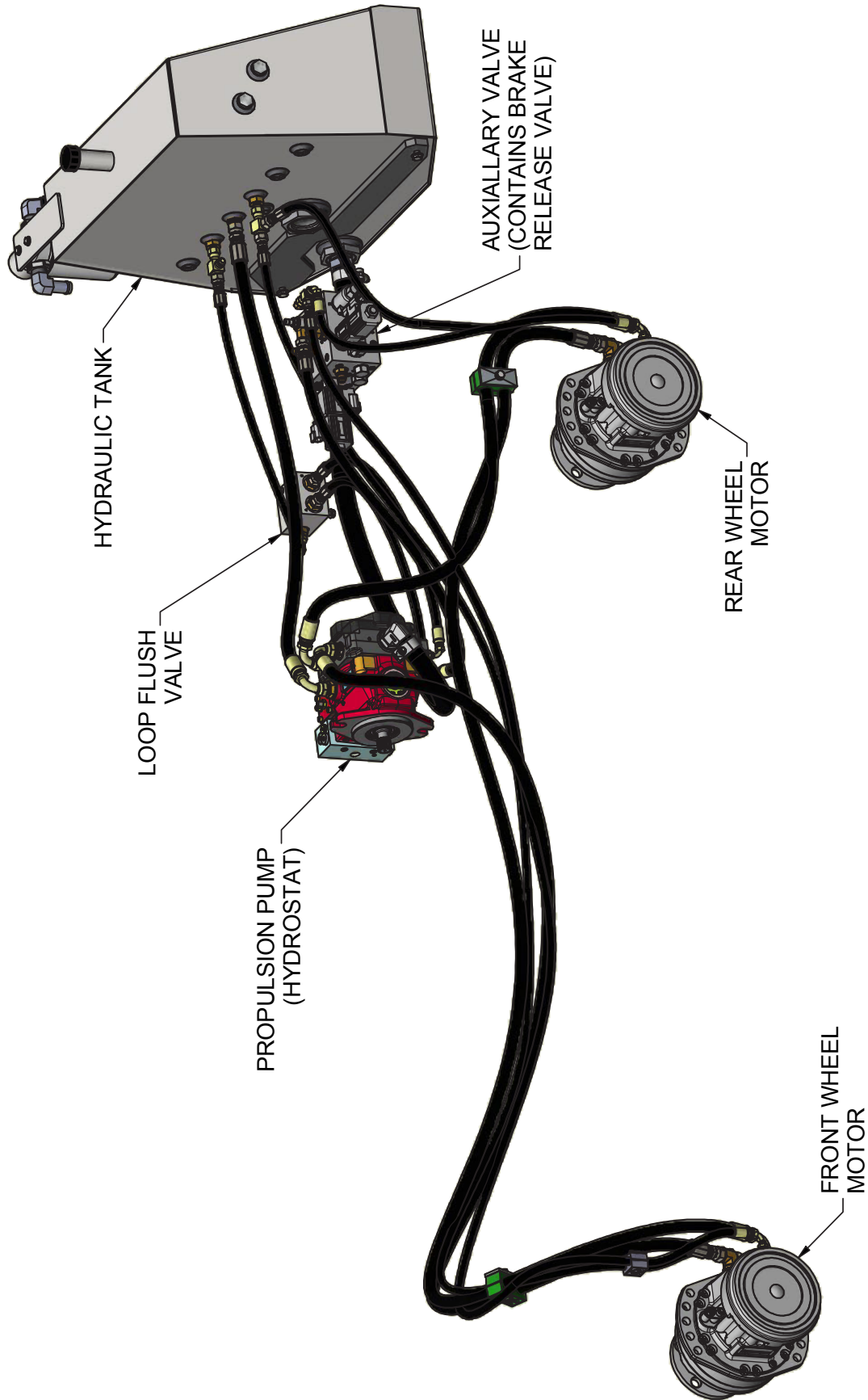


Parts List		
ITEM	QTY	PART # DESCRIPTION
1	2	110290 NUT, 1/4-20 WIZ FLANGE
2	2	110410 BOLT, 1/4-20 X 2.5
3	4	110434 BOLT, 1/4-20 X 0.5, WIZ FLANGE
4	3	110437 BOLT, 3/8-16 X 0.75, WIZ FLANGE
5	3	110444 BOLT, 5/16-18 X 0.75, WIZ FLANGE
6	2	110492 BOLT, 5/16-18 X 5.0
7	5	110606 NUT, 5/16-18 WIZ FLANGE
8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

ASSEMBLY STATION #3: 875003

4/26/2019

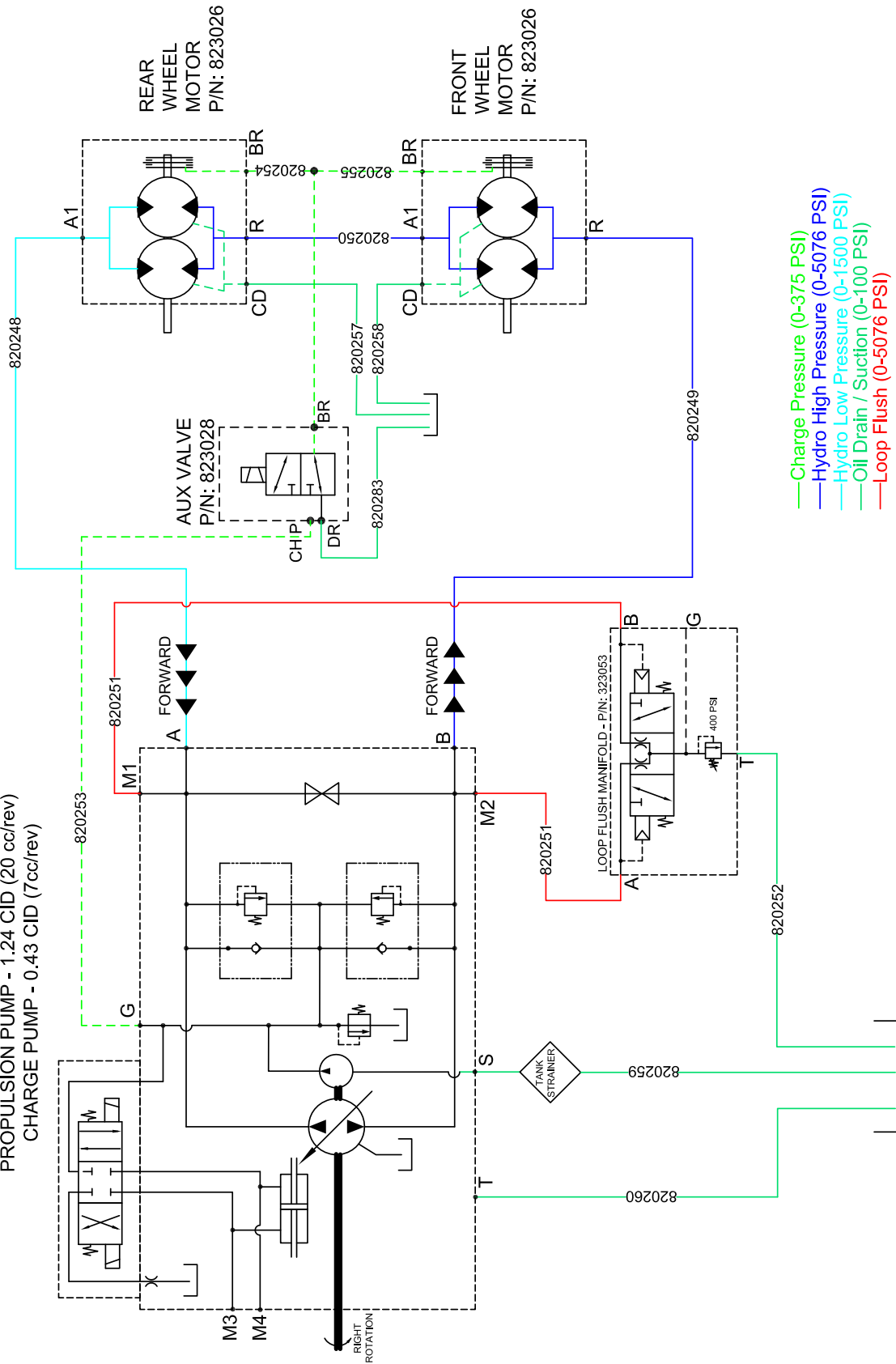
PROPULSION SYSTEM (GROUND DRIVE)



2/26/2019

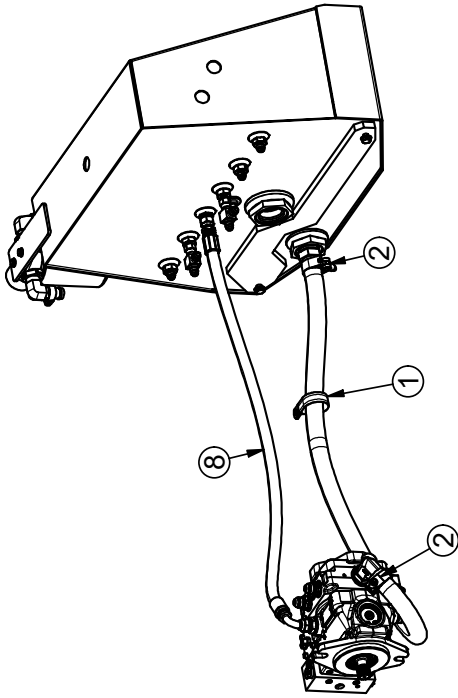
PROPULSION CIRCUIT

HYDROSTAT - PM10 POCLAIN - P/N: 823024
 PROPULSION PUMP - 1.24 CID (20 cc/rev)
 CHARGE PUMP - 0.43 CID (7cc/rev)

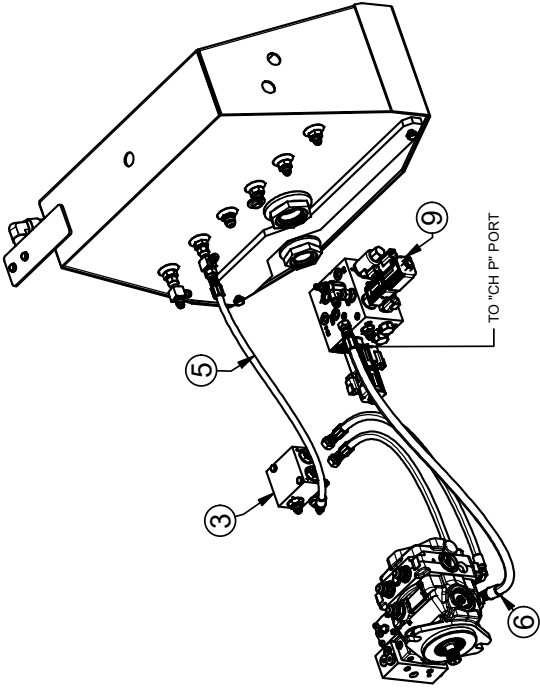


PROPULSION PLUMBING

PUMP SUCTION & DRAIN PLUMBING

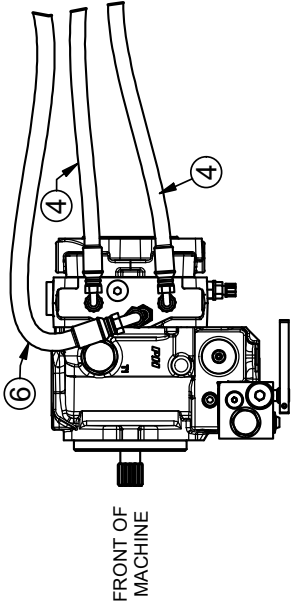


LOOP FLUSH & BRAKE RELEASE VALVE PLUMBING

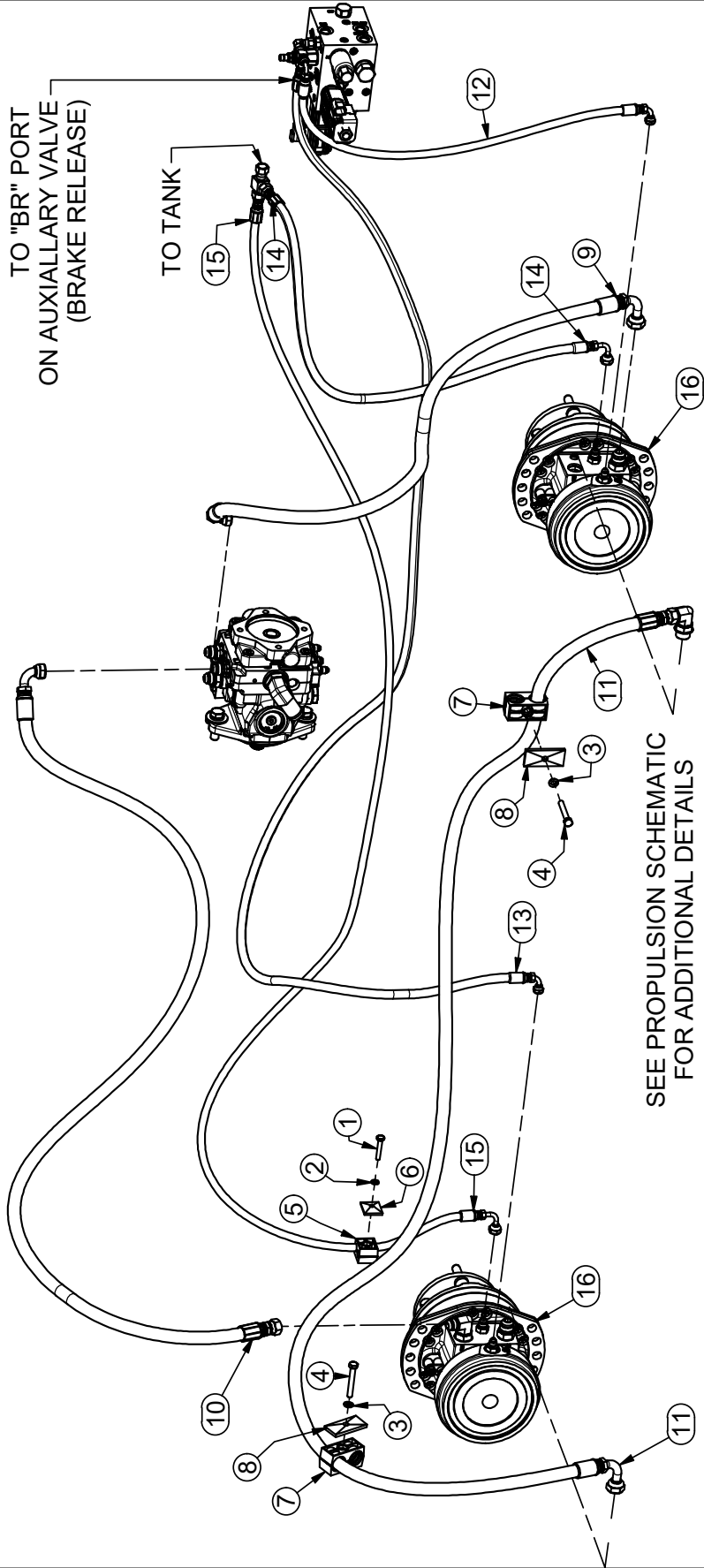


Parts List		
ITEM	QTY	PART # DESCRIPTION
1	1	100499 CLAMP, ADEL 1.75ID X .406HOLE
2	2	112101 CLAMP, 1.50", T-BOLT
3	1	323053 VALVE, LOOP FLUSH
4	2	820251 HOSE ASSY, LOOP FLUSH PRESS
5	1	820252 HOSE ASSY, LOOP FLUSH TANK
6	1	820253 HOSE ASSY, CHARGE PRESS
7	1	820259 HOSE, PROPULSION SUCTION
8	1	820260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

BOTTOM VIEW OF PUMP

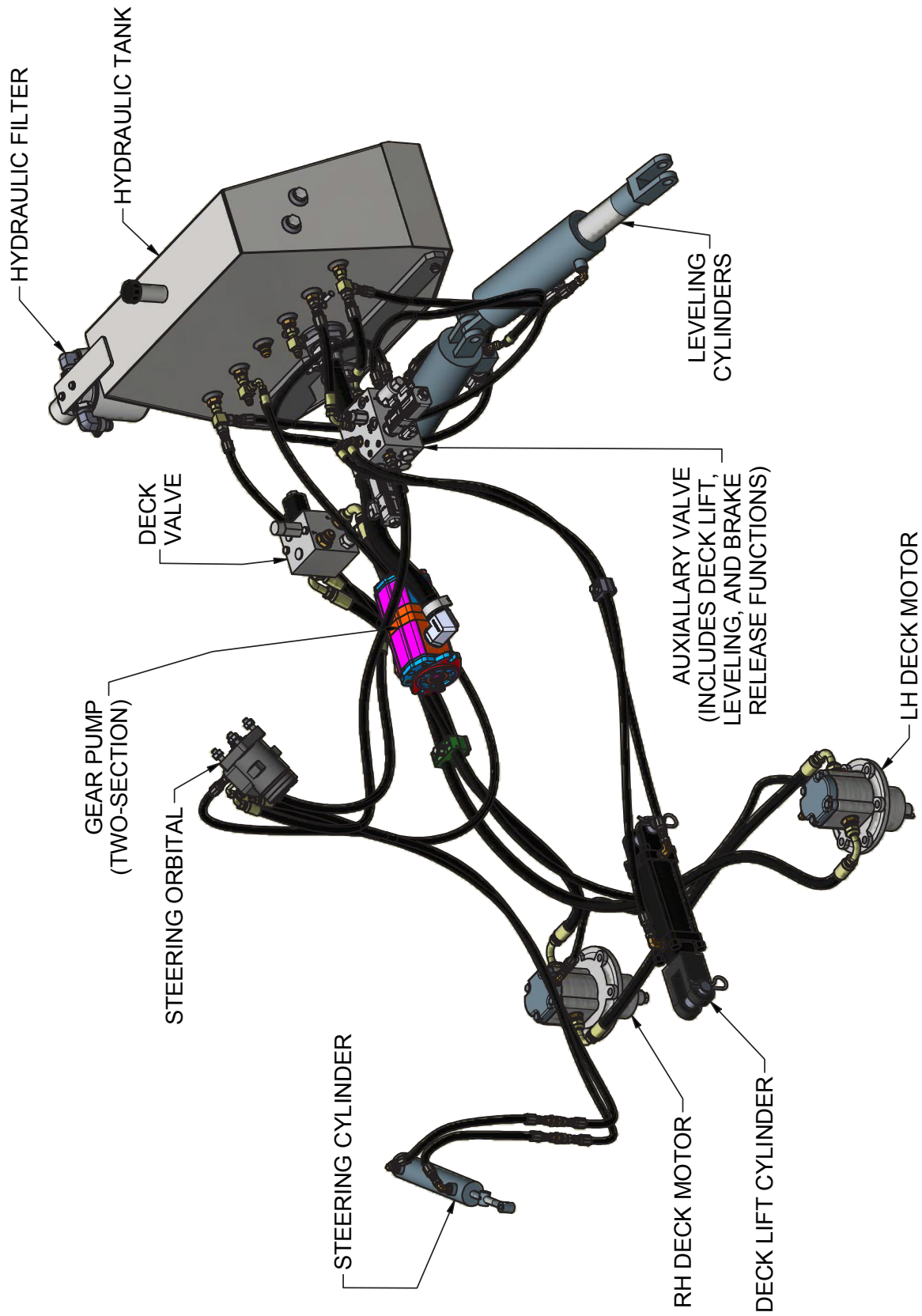


PROPULSION PLUMBING - WHEEL MOTORS



Parts List				Parts List			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	1	110474	BOLT, 1/4-20 X 1-1/2	9	1	820248	HOSE ASSY, PROP PRESS A
2	1	110667	WASHER, 1/4" LOCK	10	1	820249	HOSE ASSY, PROP PRESS B
3	2	110674	WASHER, 5/16" LOCK	11	1	820250	HOSE ASSY, PROP PRESS SERIAL
4	2	111151	BOLT, 5/16-18 X 2-1/4	12	1	820254	HOSE ASSY, REAR BRAKE
5	1	522104	DOUBLE HOSE CLAMP	13	1	820255	HOSE ASSY, FRONT BRAKE
6	1	522105	DOUBLE COVERPLATE	14	1	820257	HOSE ASSY, REAR MTR CD
7	2	522106	CLAMP BODY	15	1	820258	HOSE ASSY, FRONT MTR CD
8	2	820098	COVER PLATE	16	2	823026	MOTOR, WHEEL 30.5 CI

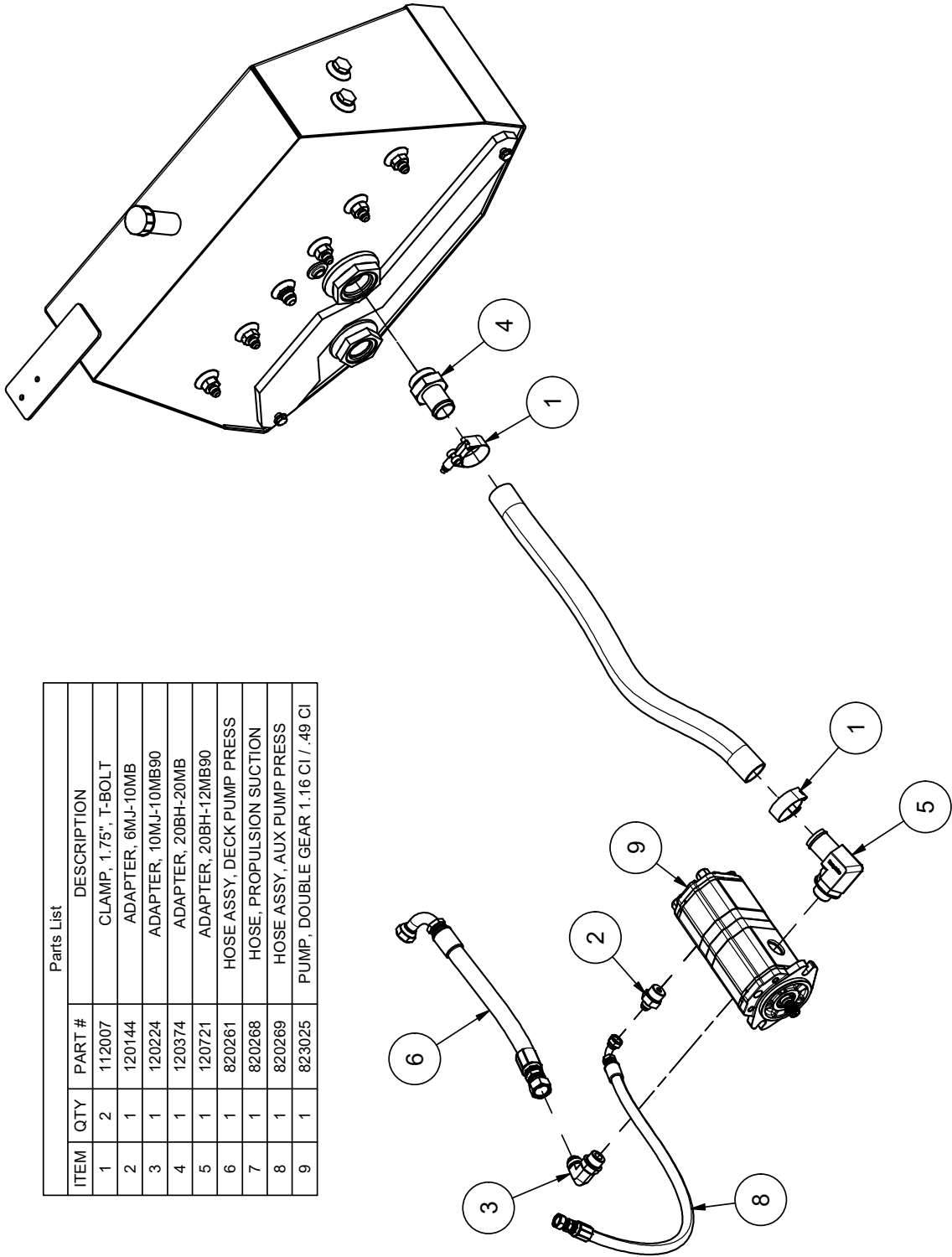
MACHINE HYDRAULIC SYSTEM



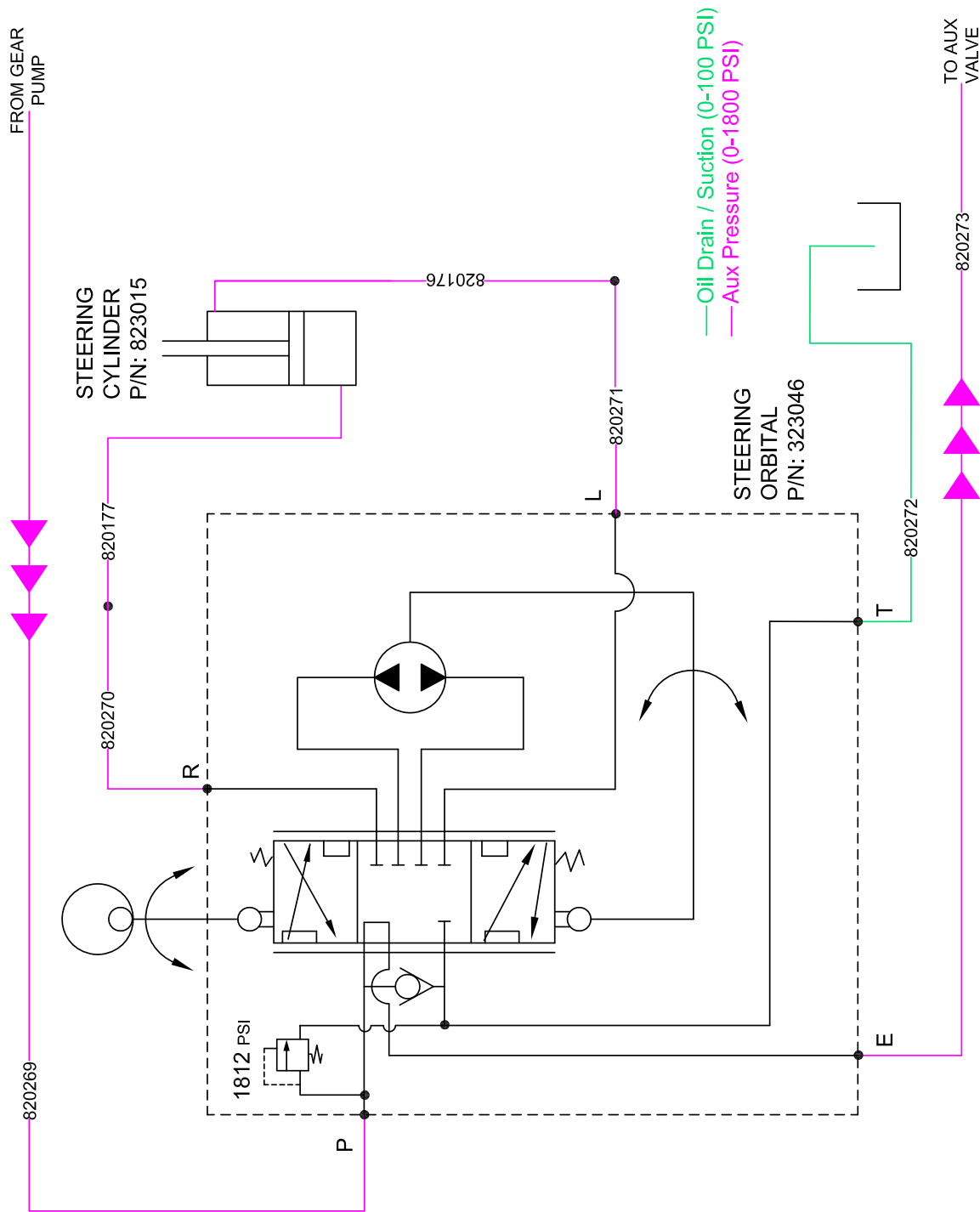
2/28/2019

GEAR PUMP ASSEMBLY & PLUMBING

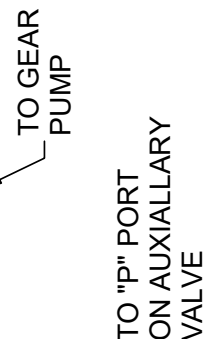
Parts List		
ITEM	QTY	PART # DESCRIPTION
1	2	112007 CLAMP, 1.75", T-BOLT
2	1	120144 ADAPTER, 6MJ-10MB
3	1	120224 ADAPTER, 10MJ-10MB90
4	1	120374 ADAPTER, 20BH-20MB
5	1	120721 ADAPTER, 20BH-12MB90
6	1	820261 HOSE ASSY, DECK PUMP PRESS
7	1	820268 HOSE, PROPULSION SUCTION
8	1	820269 HOSE ASSY, AUX PUMP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



STEERING CIRCUIT



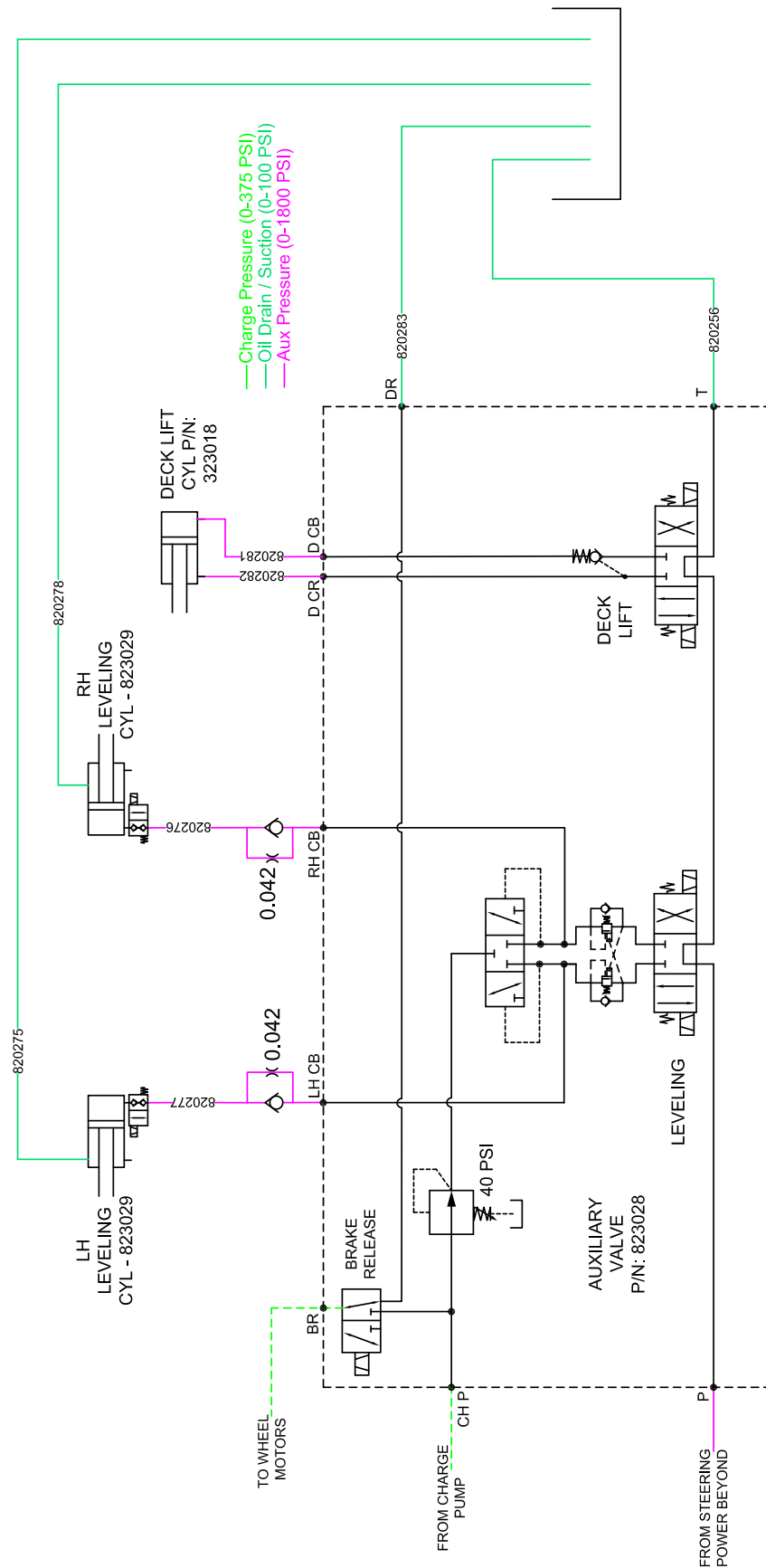
03/09/18



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

4/29/2019

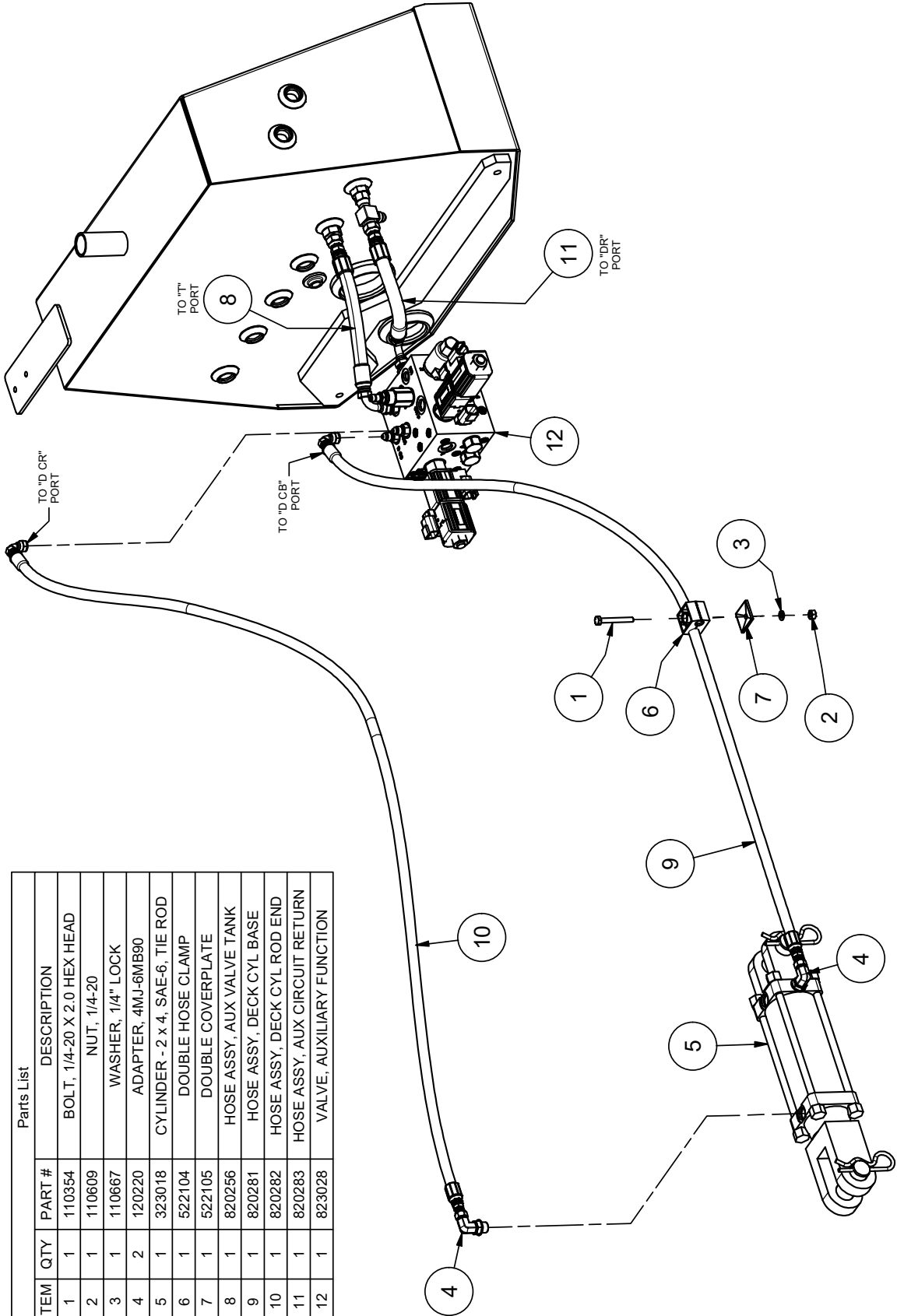
AUXILIARY FUNCTIONS CIRCUIT



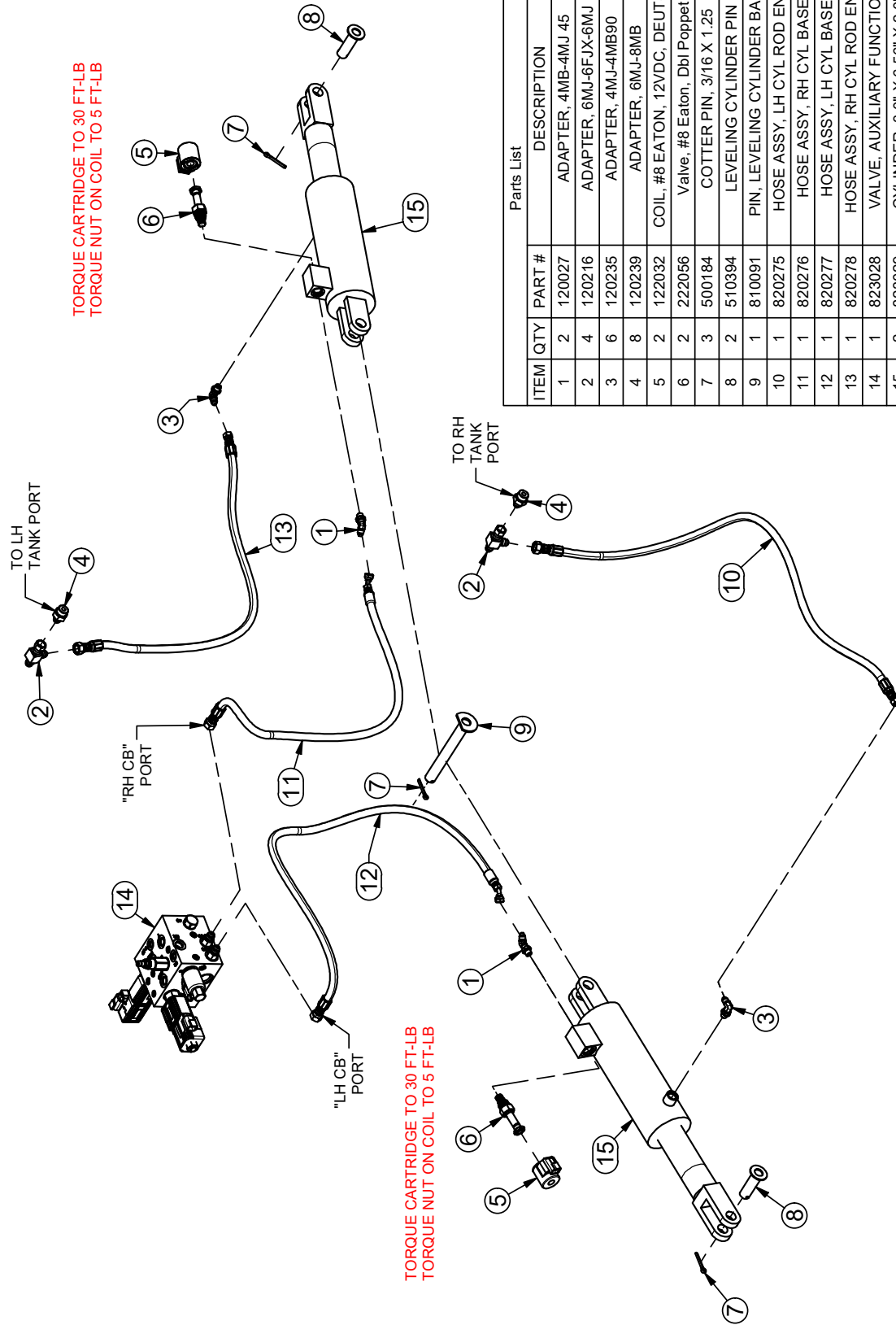
12/07/18

DECK LIFT PLUMBING

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



LEVELING PLUMBING



Parts List			DESCRIPTION
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

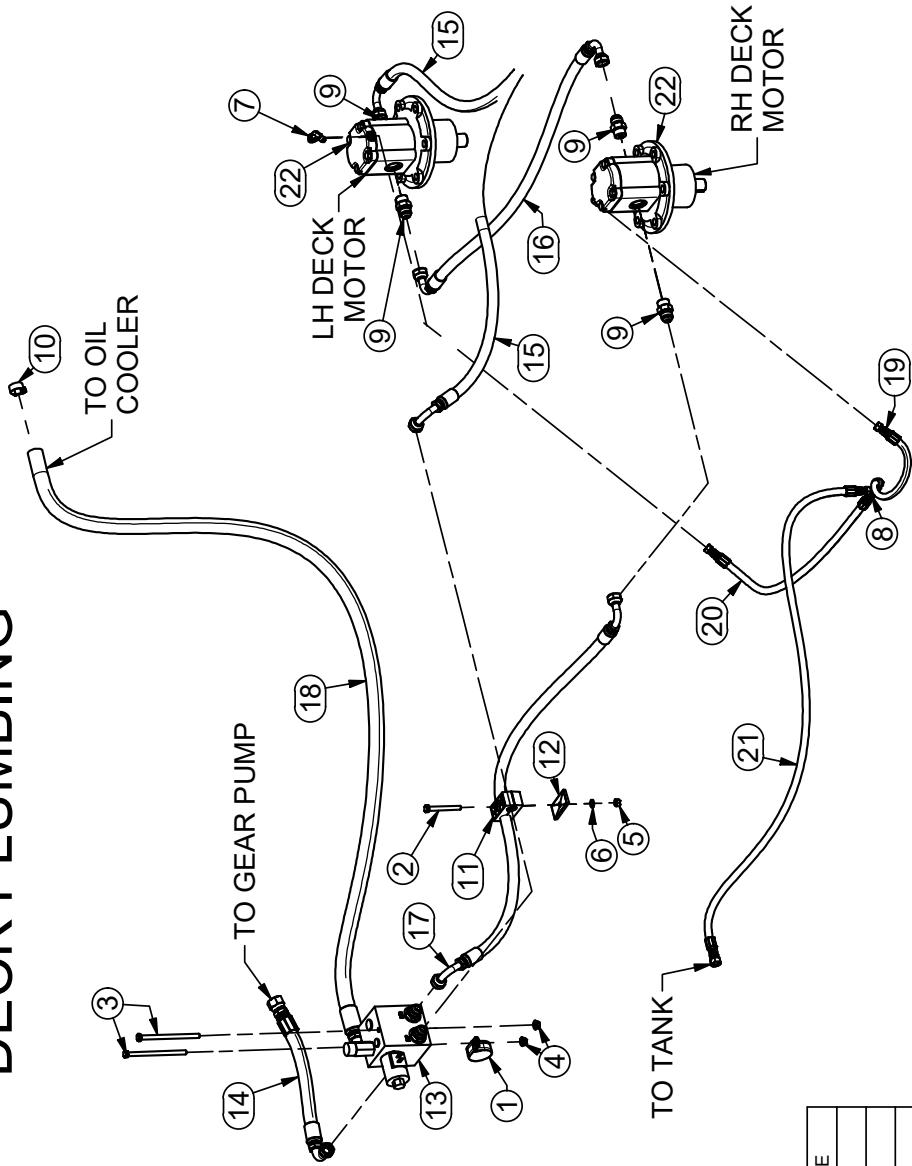
ASSEMBLY STATION #3: 875003

7/27/2020

ATM 72 LC



DECK PLUMBING

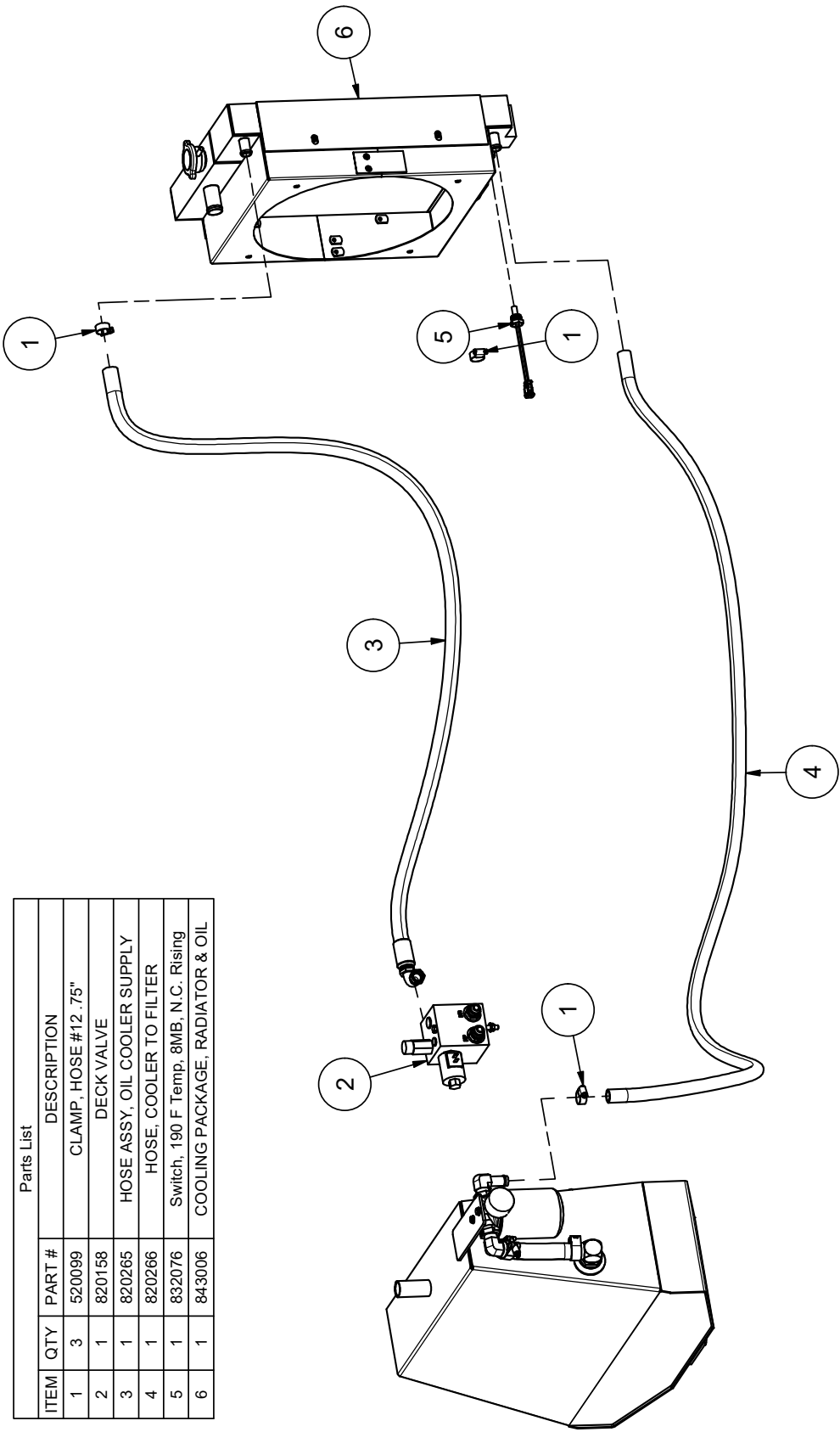


Parts List				Parts List			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	1	100499	CLAMP, ADEL 1.75ID X .406HOLE	14	1	820261	HOSE ASSY, DECK PUMP PRESS
2	1	110491	BOLT, 5/16-18 X 2.75	15	1	820262	HOSE ASSY, LH DECK PRESS
3	2	110492	BOLT, 5/16-18 X 5.0	16	1	820263	HOSE ASSY, RH DECK PRESS
4	2	110606	NUT, 5/16-18 WIZ FLANGE	17	1	820264	HOSE ASSY, DECK MOTOR RETURN
5	1	110608	NUT, 5/16-18	18	1	820265	HOSE ASSY, OIL COOLER SUPPLY
6	1	110674	WASHER, 5/16" LOCK	19	1	820284	HOSE ASSY, RH DECK MTR CD
7	2	120235	ADAPTER, 4MJ-4MB90	20	1	820285	HOSE ASSY, LH DECK MTR CD
8	1	120241	ADAPTER, 4MJ-4MJ-4MJ	21	1	820286	HOSE ASSY, DECK MTR CD TO TANK
9	8	120251	ADAPTER, 10MJ-10MB	22	2	823016	MOTOR, DECK, BI-DIRECTIONAL, 1.65 CI
10	1	520099	CLAMP, HOSE #12 .75"				
11	1	820097	CLAMP BODY				
12	1	820098	COVER PLATE				
13	1	820158	DECK VALVE				

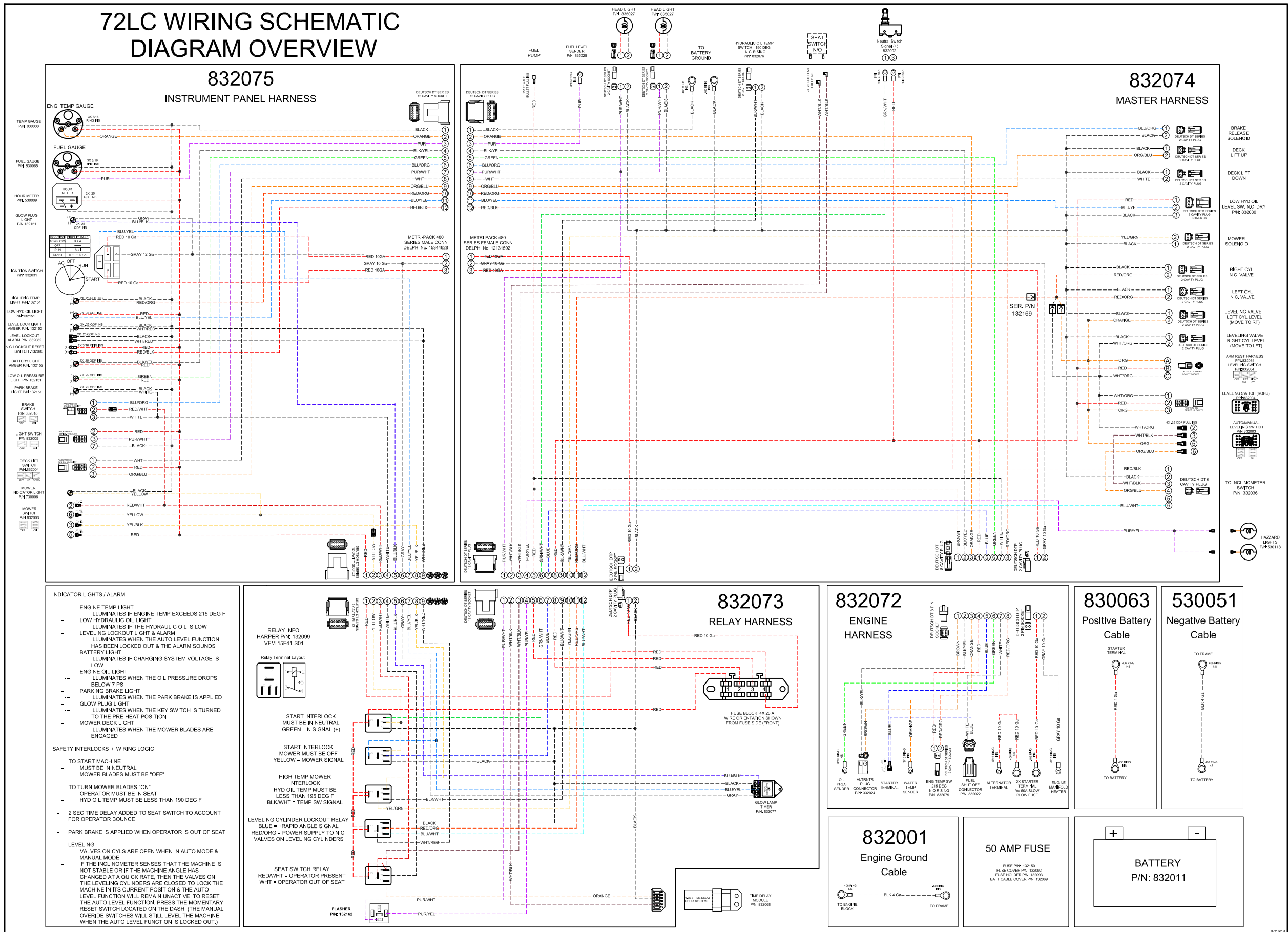
ASSEMBLY STATION #3 & 4: 875003 & 875004

OIL COOLER PLUMBING

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

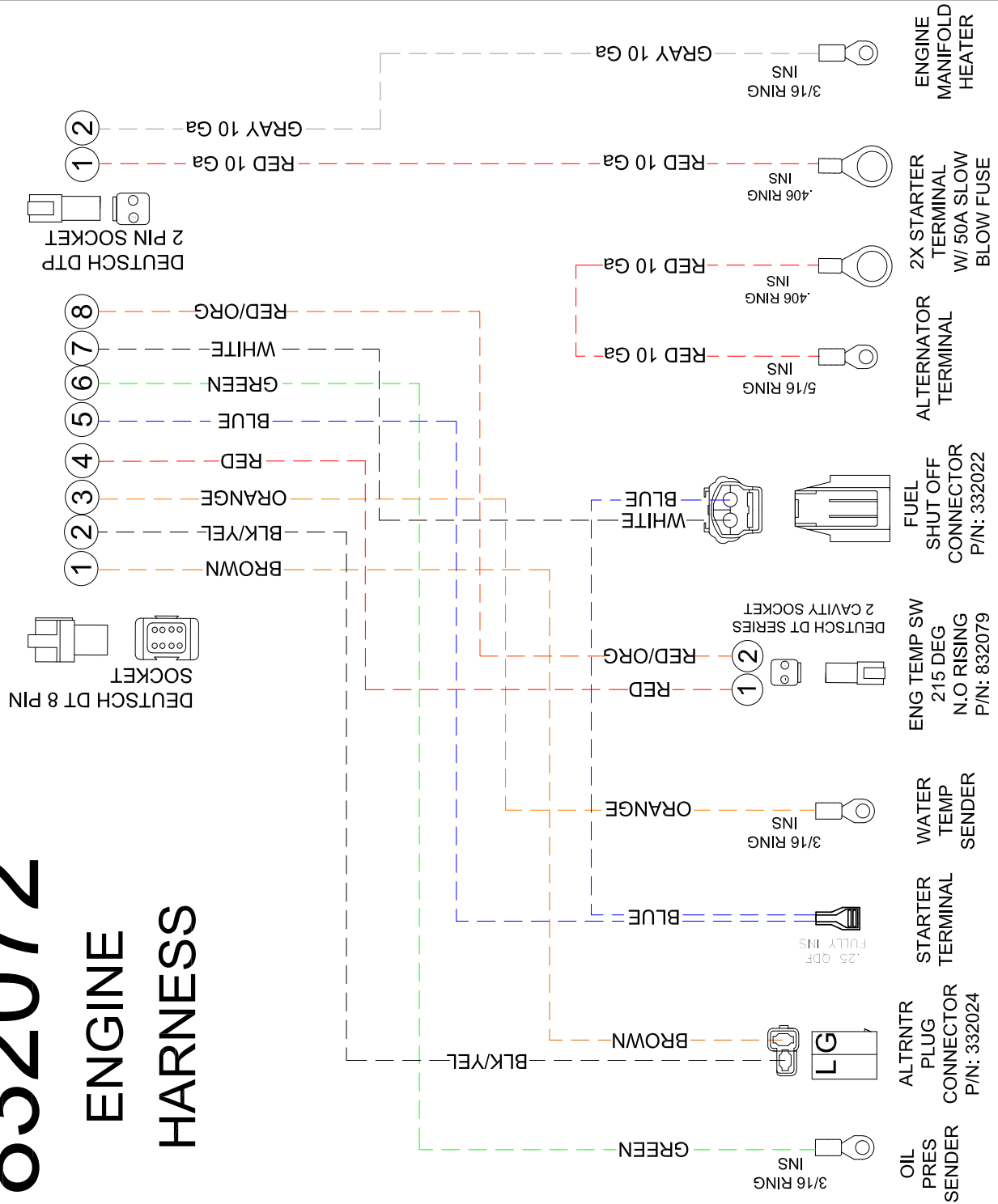


72LC WIRING SCHEMATIC DIAGRAM OVERVIEW



832072

ENGINE HARNESS



832073

RELAY HARNESS

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

FUSE BLOCK: 4X 20 A
WIRE ORIENTATION SHOWN FROM FUSE SIDE (FRONT)

DEUTSCH DT SERIES 12 CAVITY PLUG

DEUTSCH DT SERIES 12 CAVITY SOCKET

DEUTSCH DTP 2 CAVITY PLUG

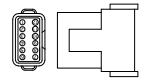
TIME DELAY MODULE
1.75 S TIME DELAY
DELTA SYSTEMS
PIN: 532068

GLOW LAMP
TIMER
PIN: 532077

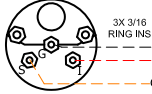
832075

INSTRUMENT PANEL HARNESS

DEUTSCH DT SERIES
12 CAVITY SOCKET

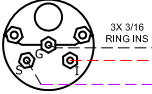


ENG. TEMP GAUGE

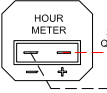


TEMP GAUGE
P/N: 830008

FUEL GAUGE



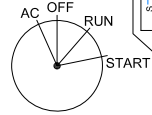
FUEL GAUGE
P/N: 530065



HOURLY METER
P/N: 530009

GLOW PLUG
LIGHT
P/N: 132151

POSITION	CIRCUIT MAKE
AC (GLOW)	B + A
OFF	
RUN	B + I
START	B + I + S + A



IGNITION SWITCH
P/N: 332031

HIGH ENG TEMP
LIGHT P/N: 132151

LOW HYD OIL LIGHT
P/N: 132151

LEVEL LOCK LIGHT
AMBER P/N: 132152

LEVEL LOCKOUT
ALARM P/N: 832082

N.C. LOCKOUT RESET
SWITCH :132090

BATTERY LIGHT
AMBER P/N: 132152

LOW OIL PRESSURE
LIGHT P/N: 132151

PARK BRAKE
LIGHT P/N: 132151

BRAKE
SWITCH
P/N: 832018



LIGHT SWITCH
P/N: 832005



DECK LIFT
SWITCH
P/N: 832004



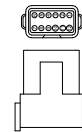
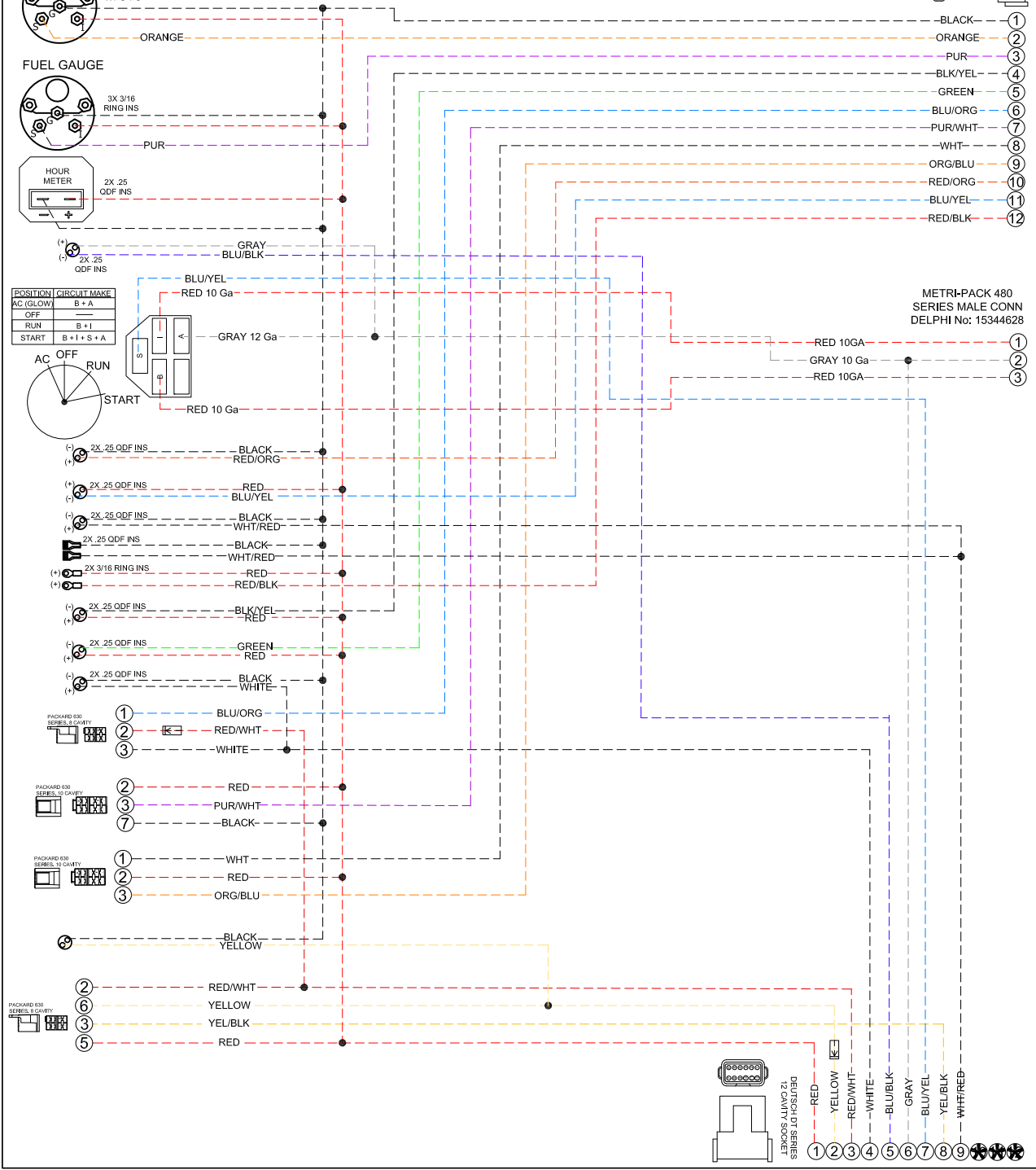
MOWER
INDICATOR LIGHT
P/N: 730006

MOWER
SWITCH
P/N: 132179



METRI-PACK 480
SERIES MALE CONN
DELPHI No: 15344628

- ① RED 10GA
- ② GRAY 10 Ga
- ③ RED 10GA



- ① RED
- ② YELLOW
- ③ RED/WHT
- ④ WHITE
- ⑤ BLU/BLK
- ⑥ GRAY
- ⑦ BLU/YEL
- ⑧ YEL/BLK
- ⑨ WHT/RED
- ⑩
- ⑪
- ⑫

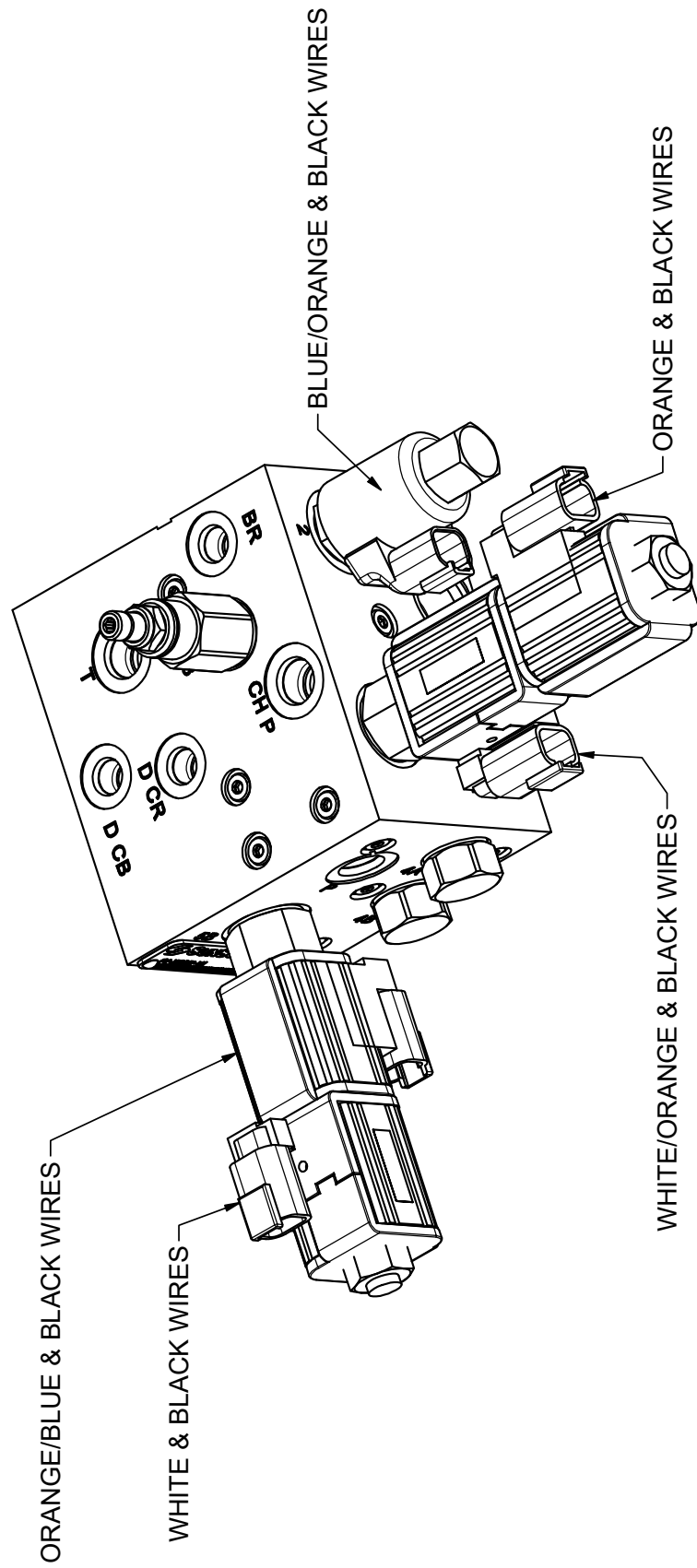
INDICATOR LIGHTS / ALARM

- 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 OVERRIDE SWITCHES WILL STILL LEVEL THE MACHINE WHEN THE AUTO LEVEL FUNCTION IS LOCKED OUT.)

AUXIALARY VALVE - COIL WIRING IDENTIFICATION



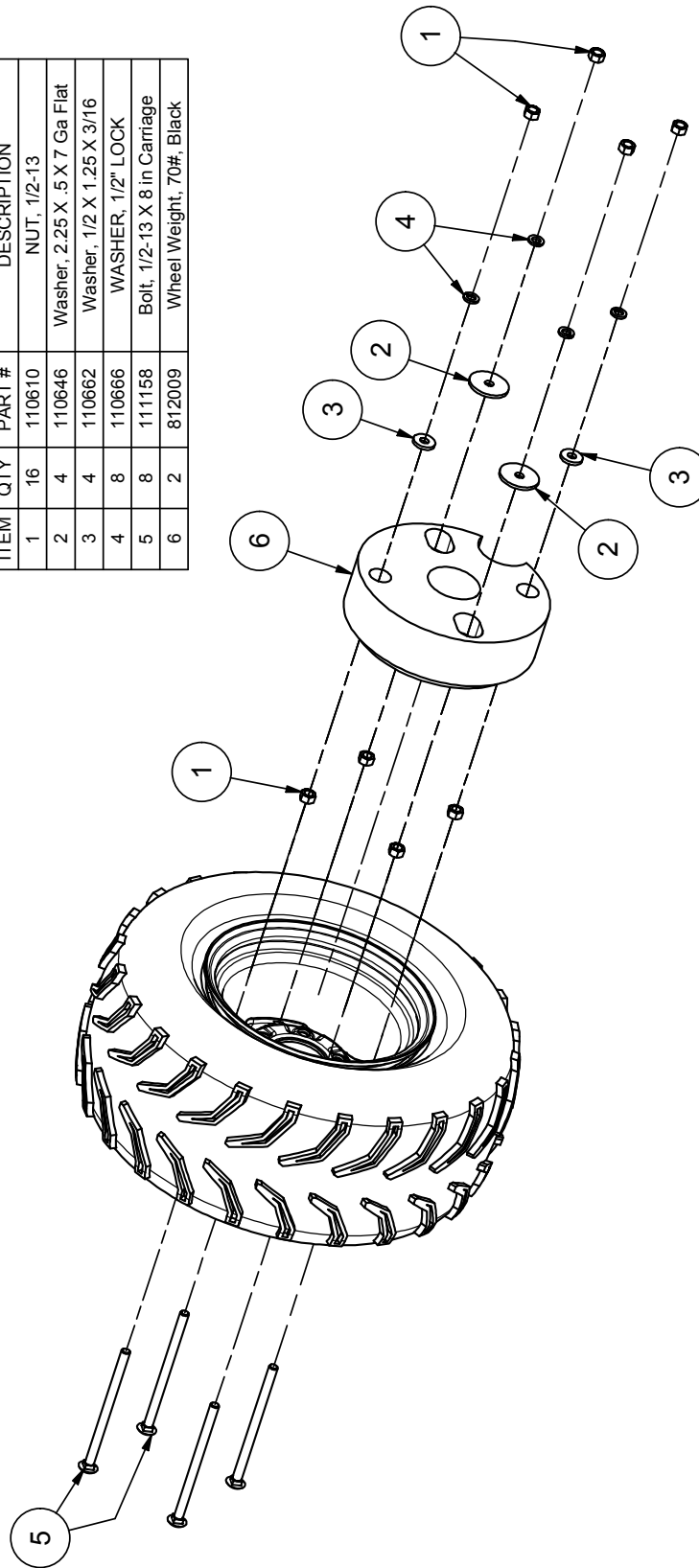
4/29/2019

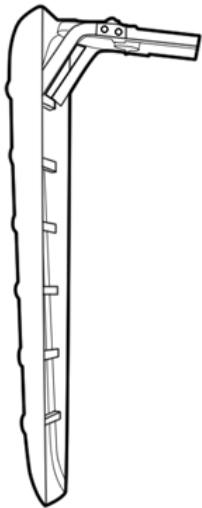
WHEEL WEIGHT KIT

P/N: 801004 - CUSTOMER INSTALL

P/N: 801005 - FACTORY INSTALL

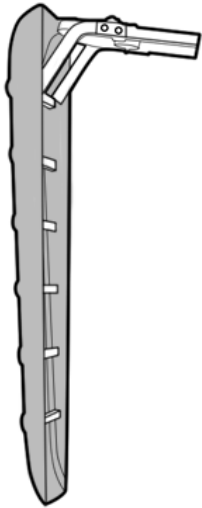
Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	16	110610	NUT, 1/2-13
2	4	110646	Washer, 2.25 X .5 X 7 Ga Flat
3	4	110662	Washer, 1/2 X 1.25 X 3/16
4	8	110666	WASHER, 1/2" LOCK
5	8	111158	Bolt, 1/2-13 X 8 in Carriage
6	2	812009	Wheel Weight, 70#, Black





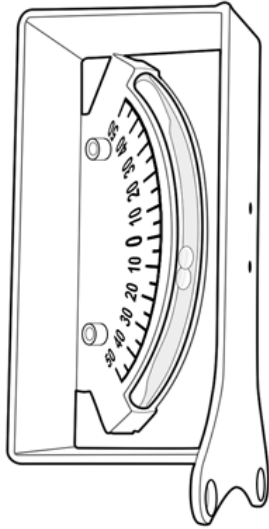
1

White Canopy



2

Red Canopy



3

Inclinometer

Parts List			
ITEM	QTY	PART #	DESCRIPTION
1	1	802039	White Canopy
2	1	802040	Red Canopy
3	1	815052	Incline Meter Assy

NOTES

Harper Industries, Inc.
151 E. Highway 160
Harper, KS 67058

Telephone: 620-896-7381
Toll-Free: 800-835-1042
Fax: 620-896-7129

Website: www.harperindustries.com

E-mail: info@harperindustries.com