

ATM 72 LC

This technical diagram illustrates the exploded view of the ATM 72 LC tractor. The main assembly includes the engine, transmission, rear wheel with a large tire, and the operator's platform. Various components are shown in their relative positions, with dashed lines indicating assembly paths. Key parts labeled include the hood (1), engine (2), transmission (3), rear wheel (4), and the operator's platform (5). Other components shown include the fuel tank (6), the rear wheel hub (7), the rear wheel rim (8), the rear wheel tire (9), the rear wheel axle (10), the rear wheel hub nut (11), the rear wheel hub washer (12), the rear wheel hub bolt (13), the rear wheel hub nut (14), the rear wheel hub washer (15), the rear wheel hub bolt (16), the rear wheel hub nut (17), the rear wheel hub washer (18), the rear wheel hub bolt (19), the rear wheel hub nut (20), the rear wheel hub washer (21), the rear wheel hub bolt (22), the rear wheel hub nut (23), the rear wheel hub washer (24), the rear wheel hub bolt (25), the rear wheel hub nut (26), the rear wheel hub washer (27), the rear wheel hub bolt (28), the rear wheel hub nut (29), the rear wheel hub washer (30), the rear wheel hub bolt (31), the rear wheel hub nut (32), the rear wheel hub washer (33), the rear wheel hub bolt (34), the rear wheel hub nut (35), the rear wheel hub washer (36), the rear wheel hub bolt (37), the rear wheel hub nut (38), the rear wheel hub washer (39), the rear wheel hub bolt (40), the rear wheel hub nut (41), the rear wheel hub washer (42), the rear wheel hub bolt (43), the rear wheel hub nut (44), the rear wheel hub washer (45), the rear wheel hub bolt (46), the rear wheel hub nut (47), the rear wheel hub washer (48), the rear wheel hub bolt (49), the rear wheel hub nut (50), the rear wheel hub washer (51), the rear wheel hub bolt (52), the rear wheel hub nut (53), the rear wheel hub washer (54), the rear wheel hub bolt (55), the rear wheel hub nut (56), the rear wheel hub washer (57), the rear wheel hub bolt (58), the rear wheel hub nut (59), the rear wheel hub washer (60), the rear wheel hub bolt (61), the rear wheel hub nut (62), the rear wheel hub washer (63), the rear wheel hub bolt (64), the rear wheel hub nut (65), the rear wheel hub washer (66), the rear wheel hub bolt (67), the rear wheel hub nut (68), the rear wheel hub washer (69), the rear wheel hub bolt (70), the rear wheel hub nut (71), the rear wheel hub washer (72), the rear wheel hub bolt (73), the rear wheel hub nut (74), the rear wheel hub washer (75), the rear wheel hub bolt (76), the rear wheel hub nut (77), the rear wheel hub washer (78), the rear wheel hub bolt (79), the rear wheel hub nut (80), the rear wheel hub washer (81), the rear wheel hub bolt (82), the rear wheel hub nut (83), the rear wheel hub washer (84), the rear wheel hub bolt (85), the rear wheel hub nut (86), the rear wheel hub washer (87), the rear wheel hub bolt (88), the rear wheel hub nut (89), the rear wheel hub washer (90), the rear wheel hub bolt (91), the rear wheel hub nut (92), the rear wheel hub washer (93), the rear wheel hub bolt (94), the rear wheel hub nut (95), the rear wheel hub washer (96), the rear wheel hub bolt (97), the rear wheel hub nut (98), the rear wheel hub washer (99), the rear wheel hub bolt (100).

OPERATOR'S

S

All Terrain Mower®

72_{LC}

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) • 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.

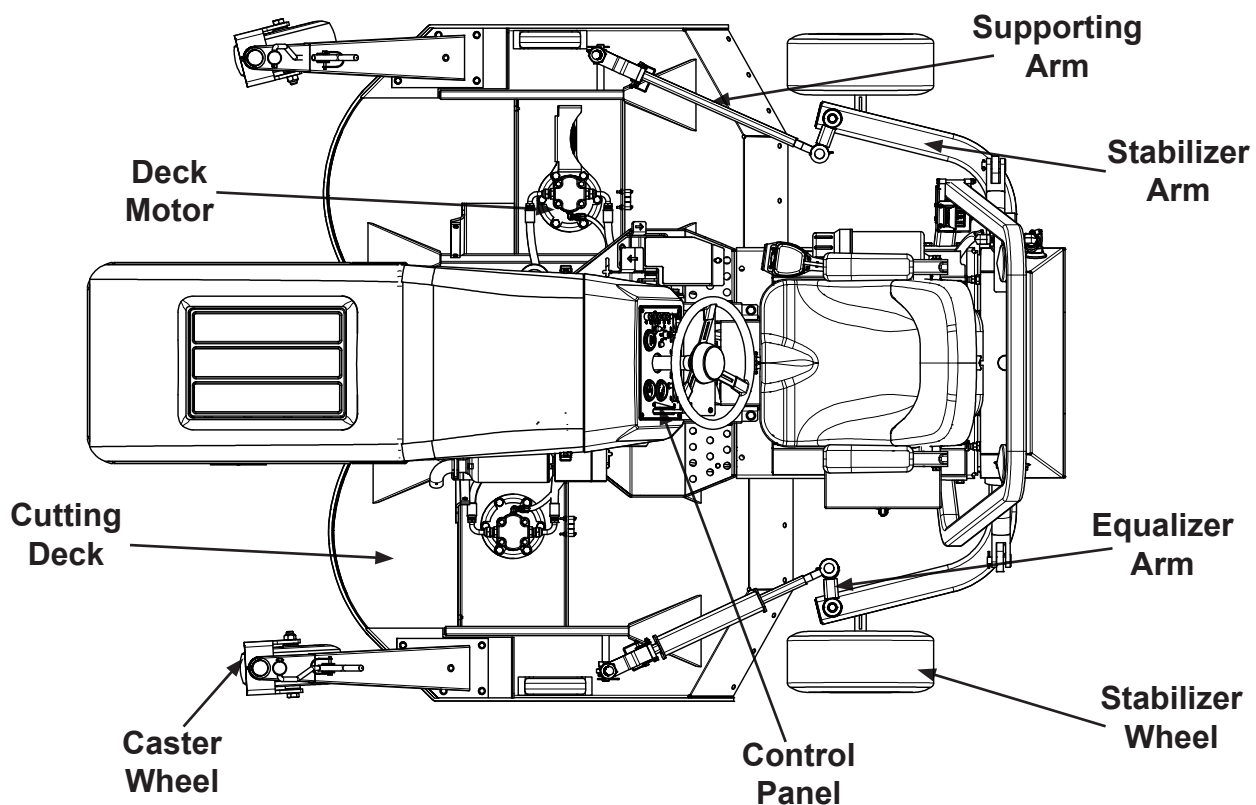
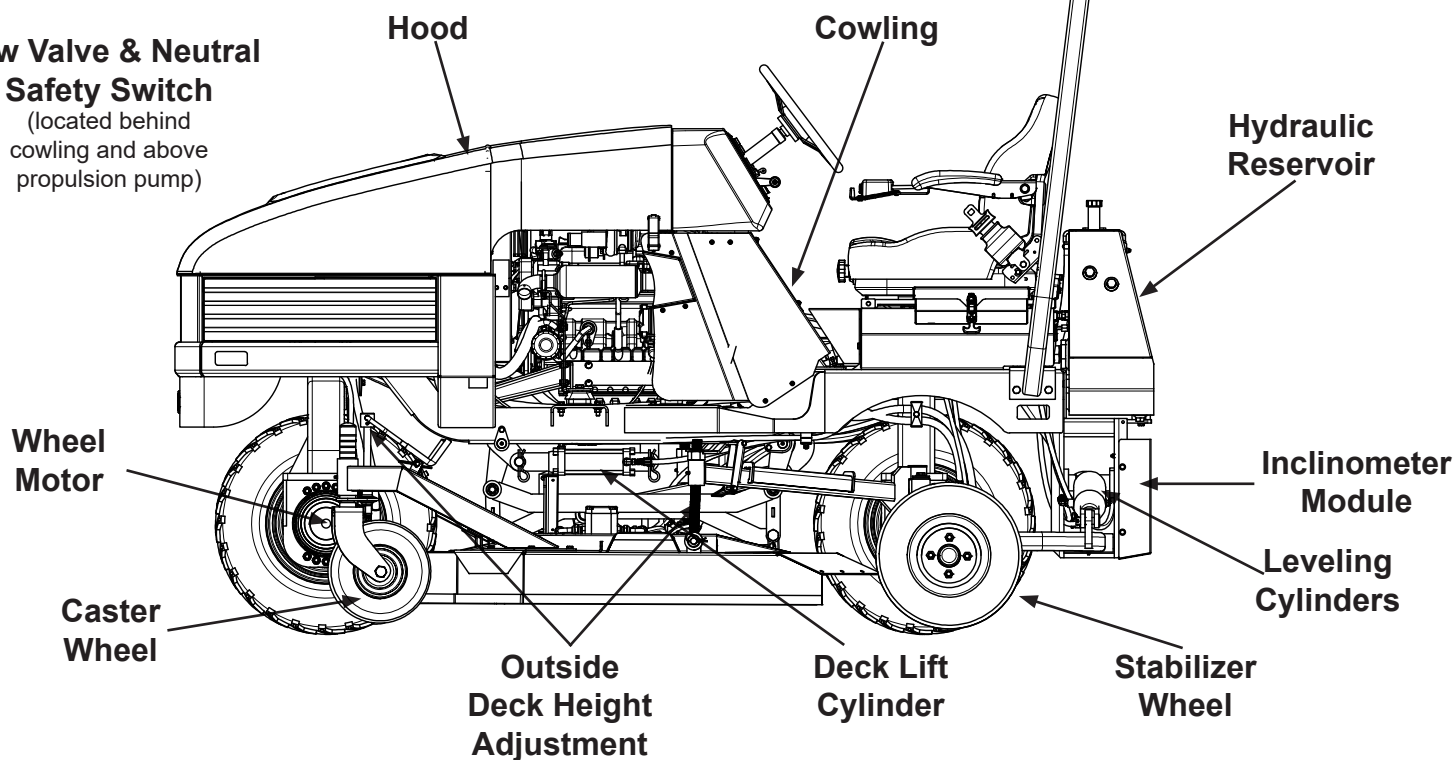
Control Identification

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 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.

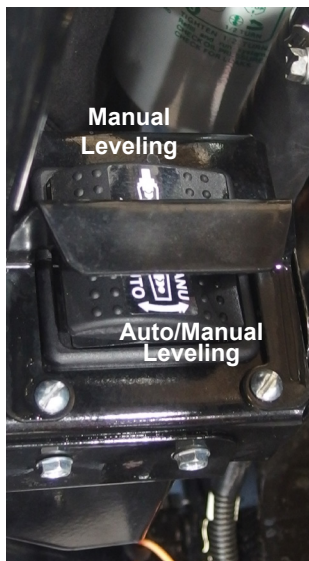
Hydraulic Level Light – turns on when the hydraulic oil is low.

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

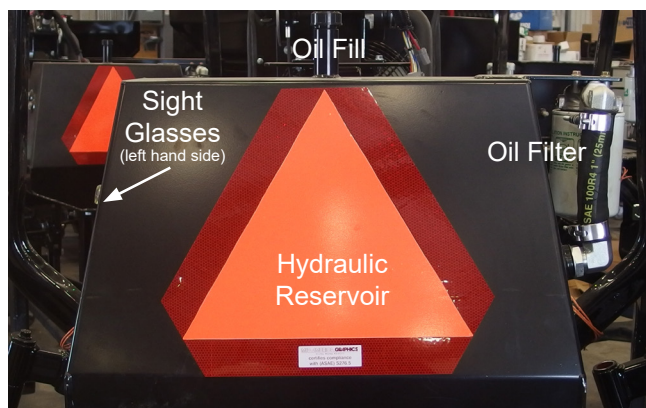
- The hydraulic system of the ATM72LC is filled at the factory with Crown AW 46 hydraulic oil that has an ISO of 46.
- The ATM72LC has a 3 micron, beta rated hydraulic oil filter designed for long life.

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.

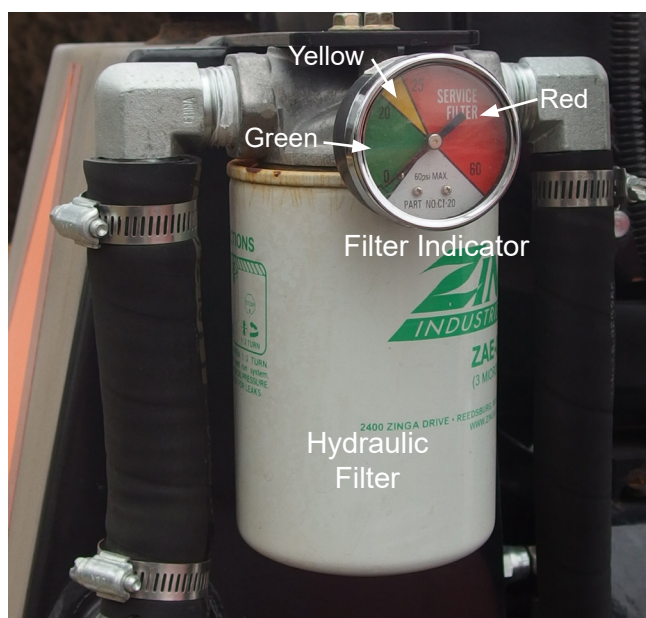
Appropriate replacements:

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 AWP MV 46
- Shell Tellus T 46
- Texaco Rando HDZ 46

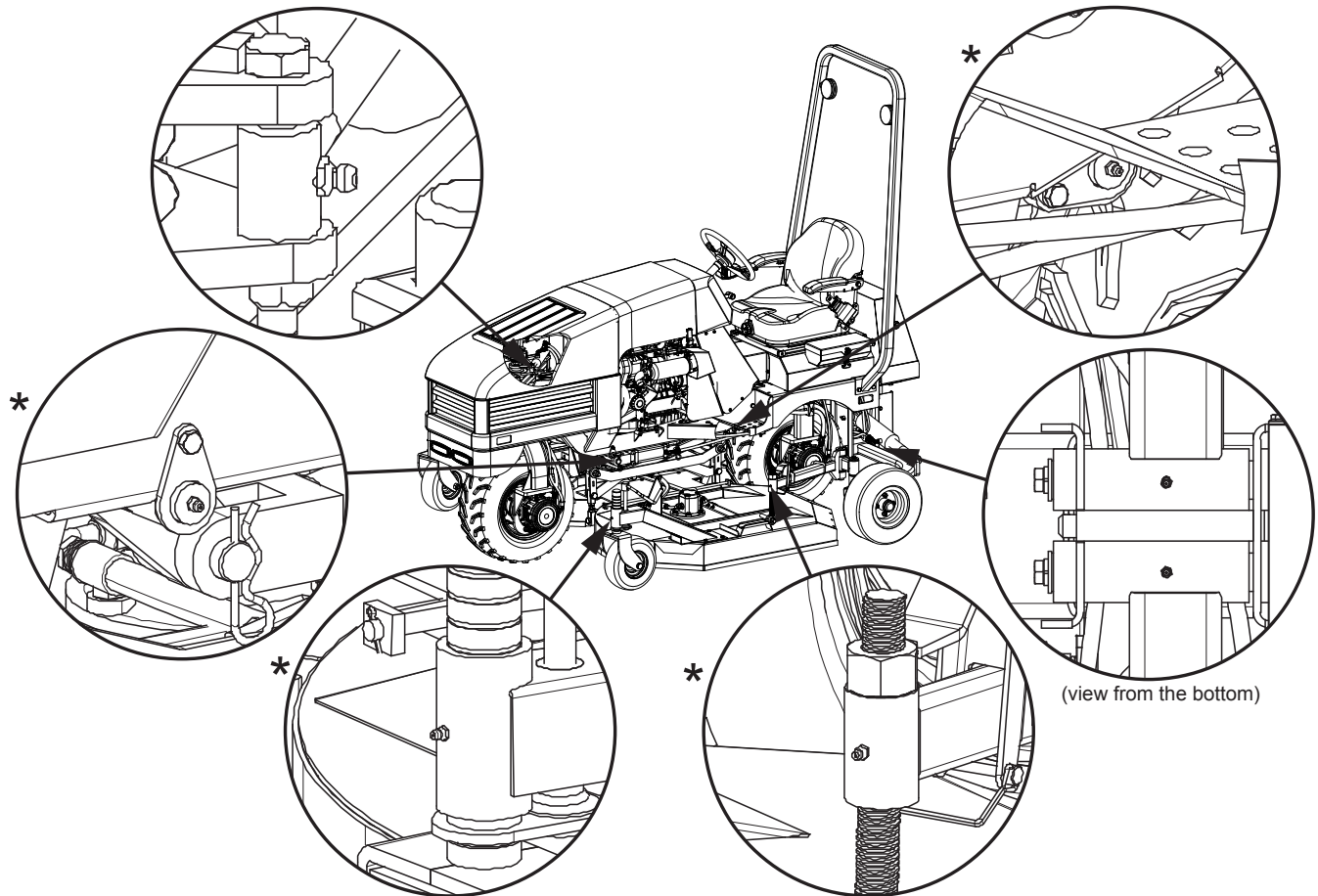


- On a daily basis, monitor the needle in the filter indicator when the oil is at normal operating temperature.



- 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

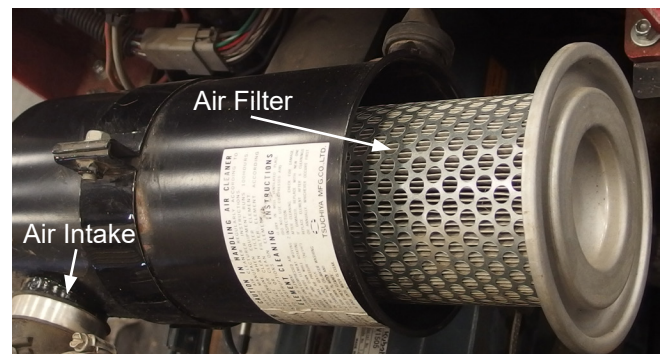


* Denotes a second grease zerk identical to this one on the other side.

PROCEDURE

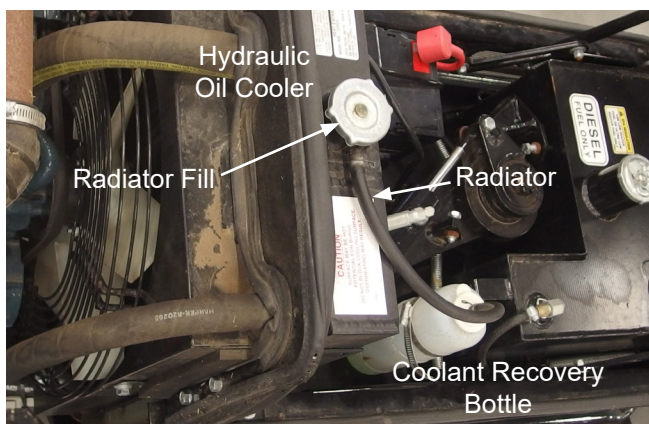
- 1) Park on level ground and set park brake.
- 2) Turn off ATM.
- 3) Give 2 to 3 shots of grease after every 10 hours of use.

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



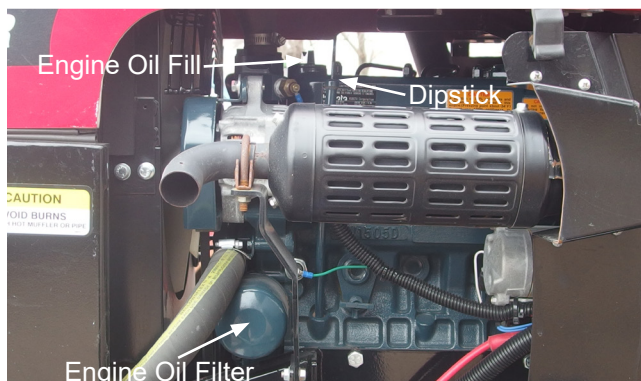
- The radiator and hydraulic oil cooler are located side by side in the same aluminum heat exchanger.
- Clear hydraulic oil cooler and radiator of debris with pressurized air daily or as needed.
- Check radiator level daily and only when engine is cool and not running.
- Remove cap (radiator fill) slowly 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. 10W/30) through the engine oil fill location.
- Replace the engine oil/filter according to the Maintenance Schedule.



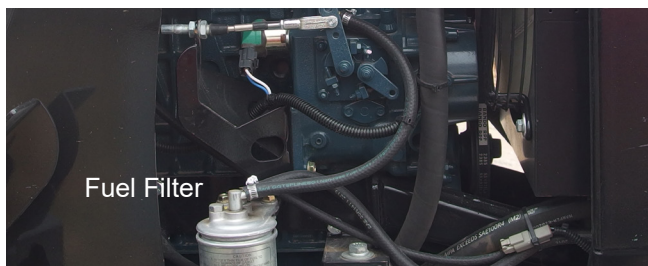
SAFETY WARNING

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

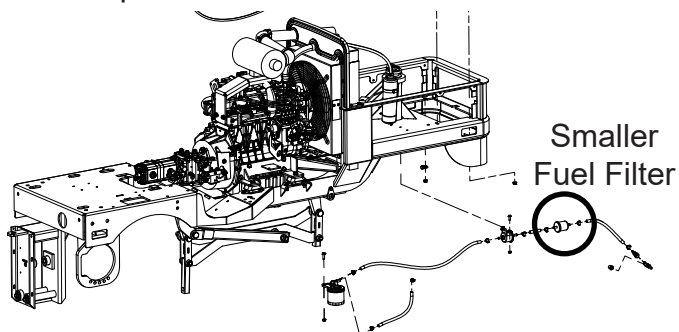
above 25°C (77°F)	SAE30 or SAE10W-30 SAE15W-40
-10°C - 25°C (14°F - 77°F)	SAE10W-30 SAE15W-40
below -10°C (14°F)	SAE10W-30

- 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.

Relay Panel



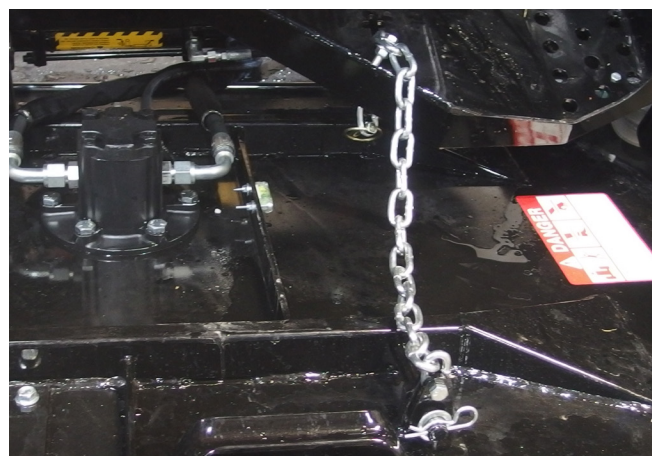
- Located under the hood behind the dash of the mower.

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.



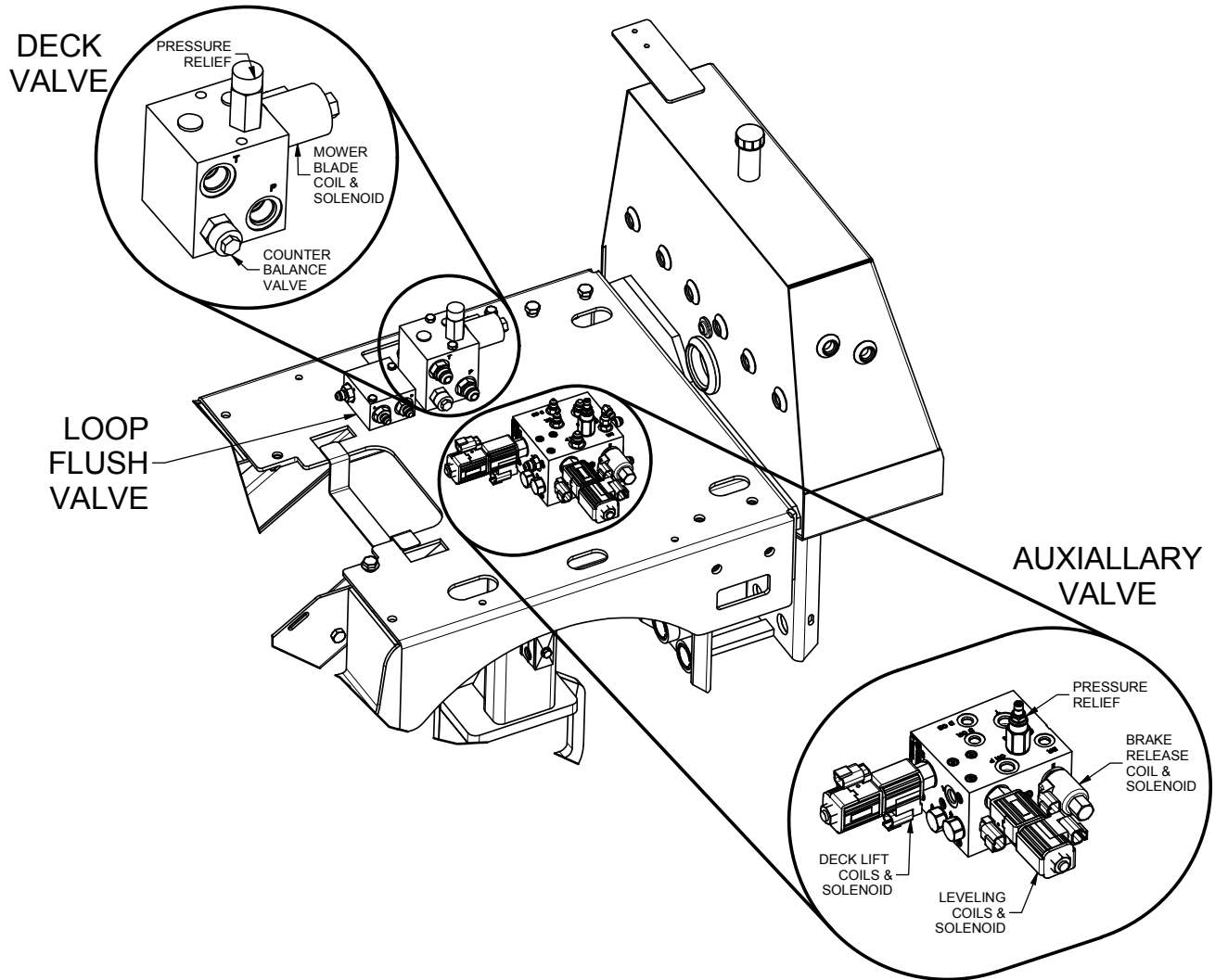
- Block deck up before working under the deck.



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.



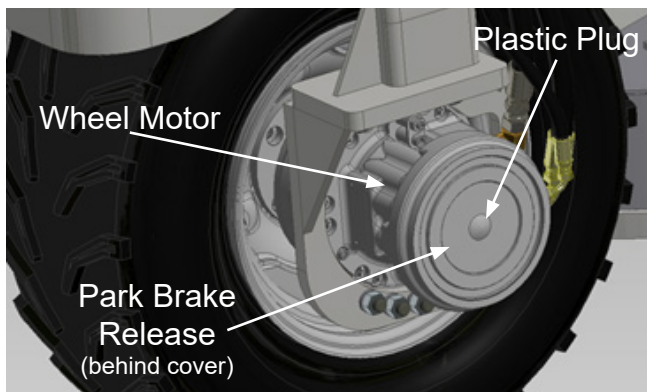
Tow Procedure

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.



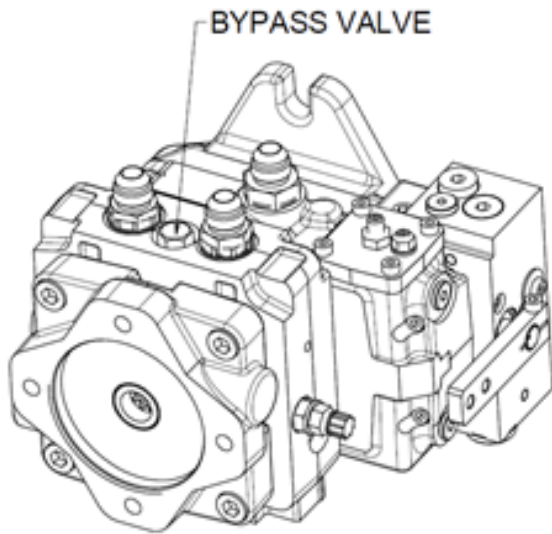
- Open the bypass valve when moving the machine for short distances. The bypass valve connects the high-pressure ports A & B. Only use this valve in an emergency case and for a short distance.
- The bypass valve is not a tow valve and can not be used to pull the machine for a long distance.



PRECAUTIONS



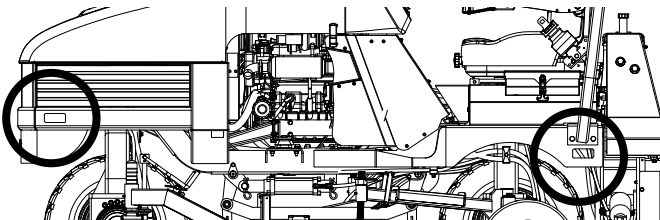
- The bypass valve is intended only for moving a vehicle a very short distance and is not intended for towing a vehicle behind a truck or tractor. Note: Serious damage to the hydrostatic drive will result if the vehicle is towed.
- Close the bypass valve tightly when finished moving unit. Failure to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



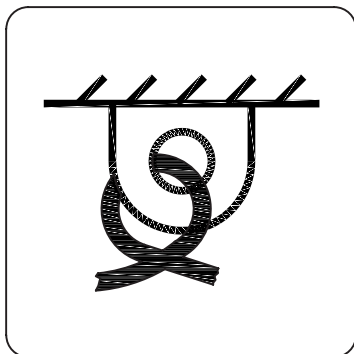
PROCEDURE

- 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

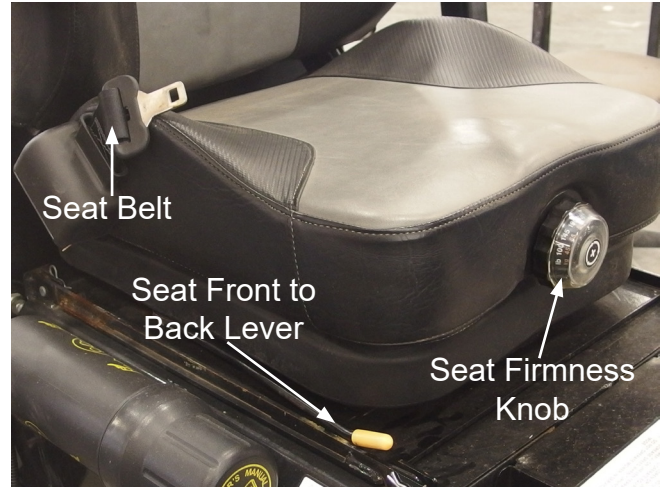


There are (4) tie down locations designated on the machine that are located at the front and rear of each side of the machine, and they are accompanied by the following decal:



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.



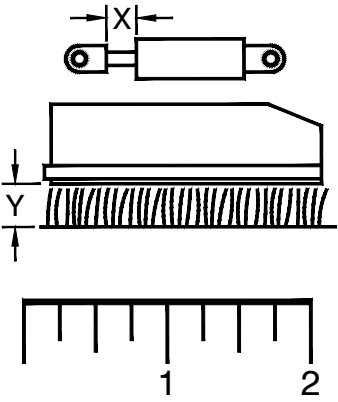
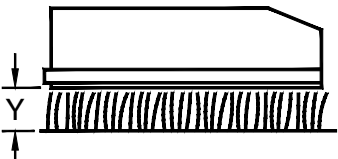
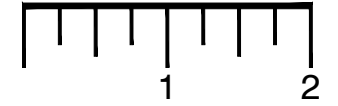
- Adjust the screw to change the angle of the arm rests.
- The seat belt is retractable and will lock up on impact or accident.

Cutting Height

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

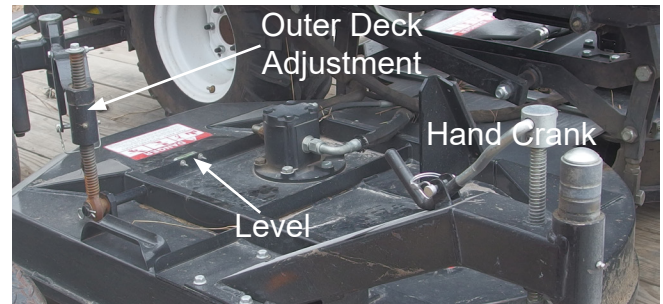


- Using the decal on the side of the frame or the picture below, identify the cylinder spacer(s) needed to achieve the desired cut height. The cylinder spacers are located in the tool box on the LH side of the seat frame. The spacers provided include:
2 - 0.25"
1 - 0.50"
1 - 1.00"

X CYLINDER SPACER	Y CUT HEIGHT	
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



SAFETY WARNING!

Refer to the Standard Torque Chart when-ever 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

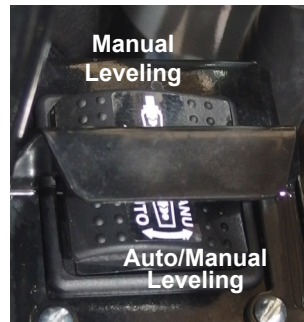
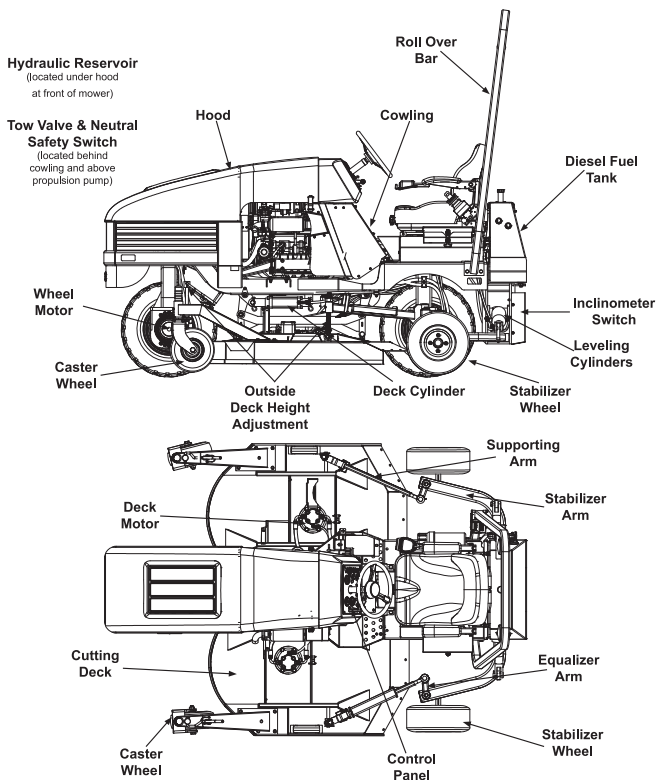
Every Two Years

- 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

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

- 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 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.

NOTES

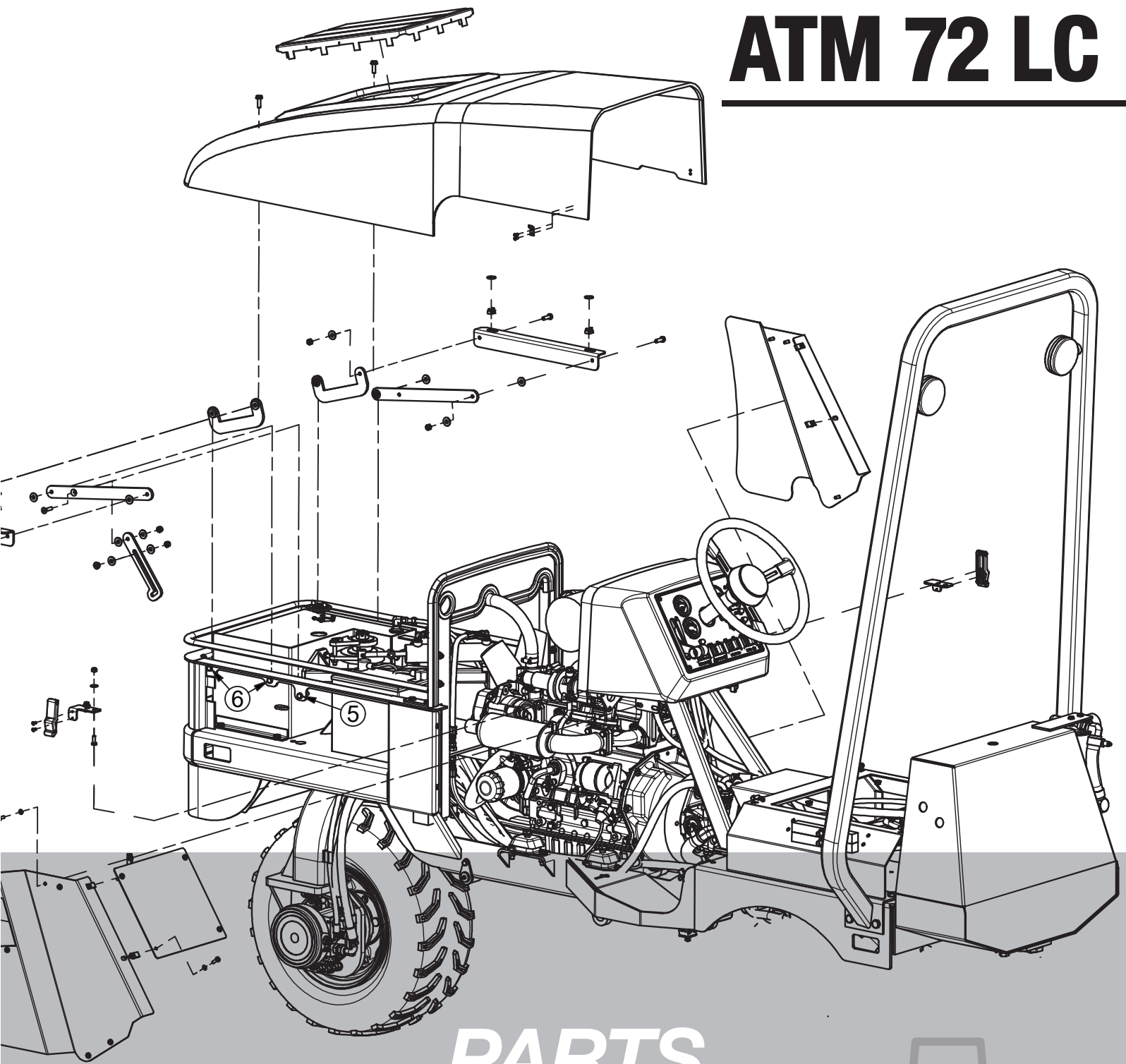
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ATM 72 LC



PARTS MANUAL



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Options

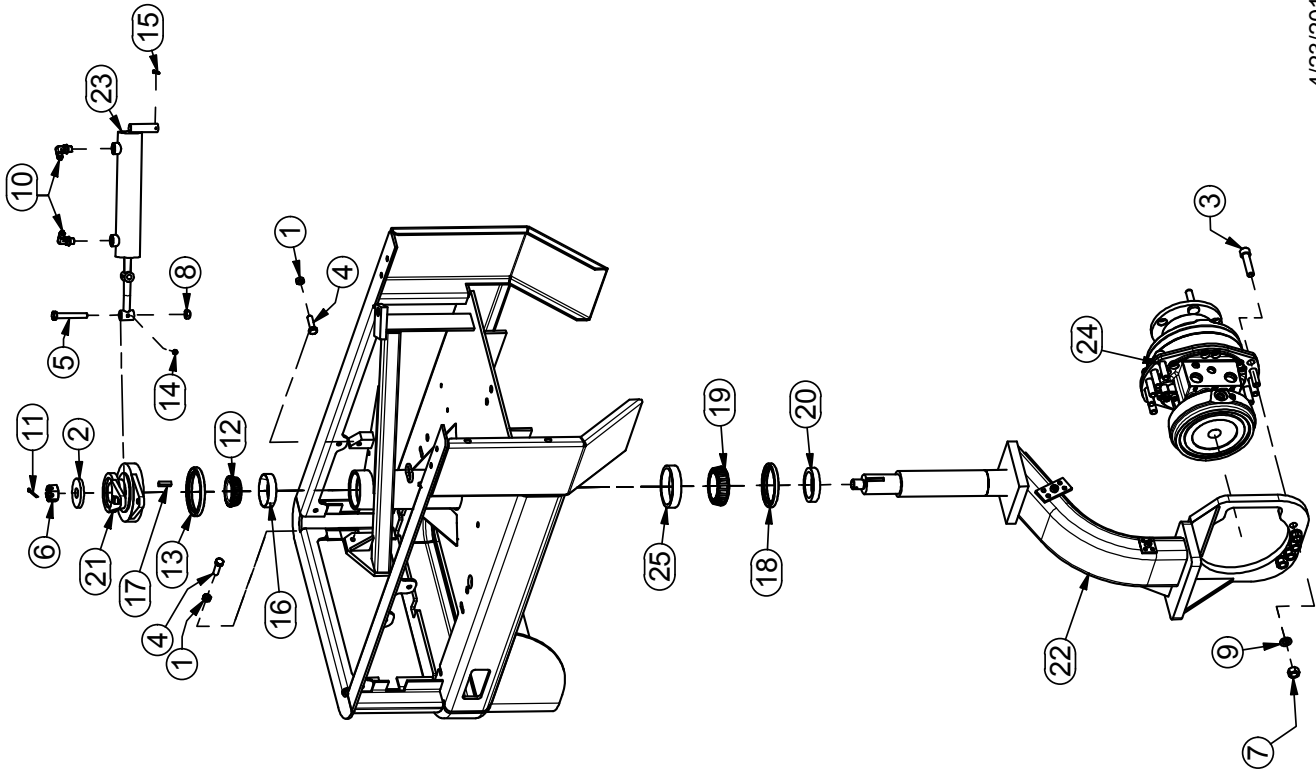
Wheel Weight Kit.....	4.1
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Frame & Assemblies



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



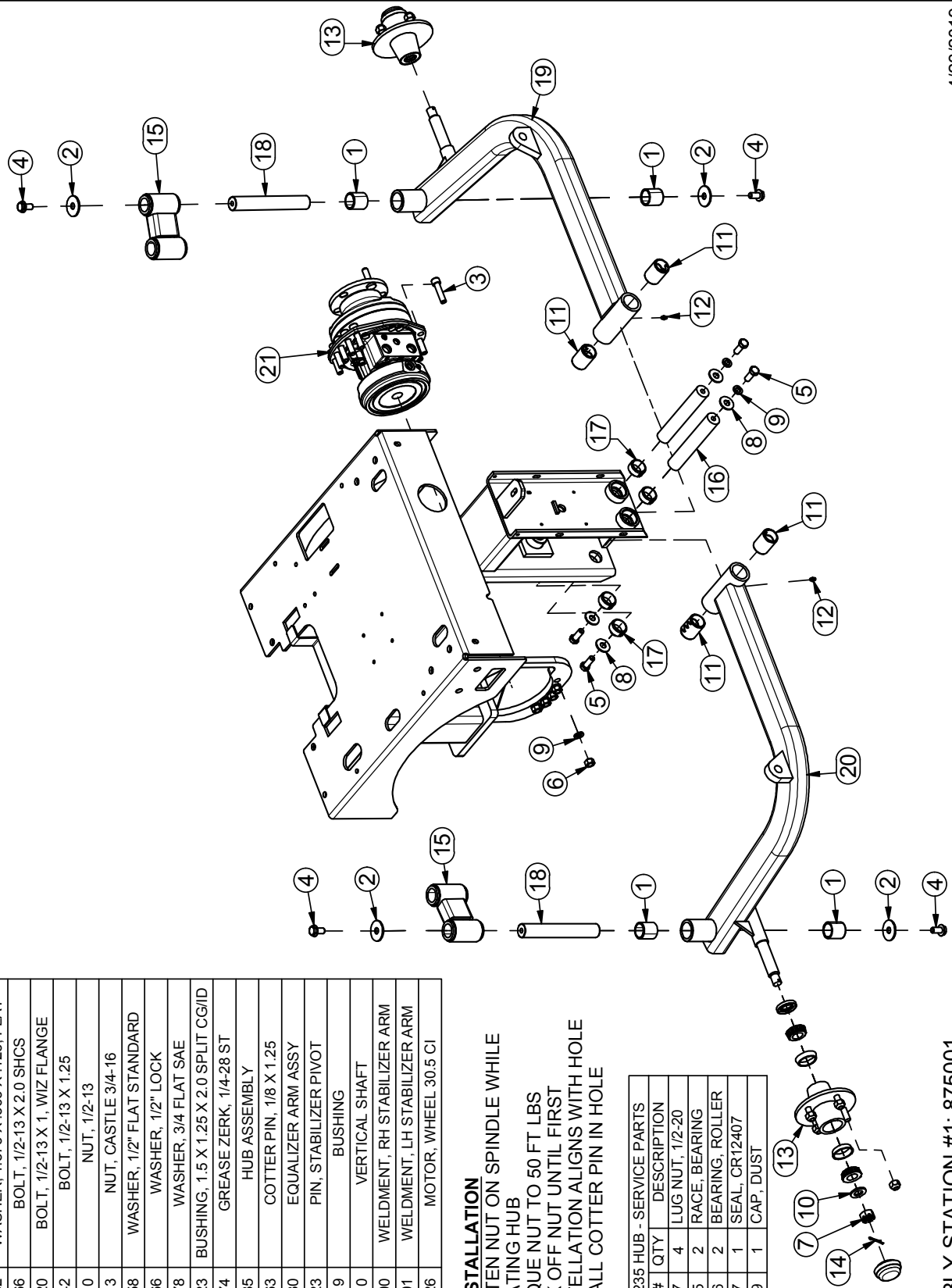
Parts List	
ITEM	PART # DESCRIPTION
1	102019 BUSHING, 1-1/2 X 1-1/4 X 1-1/2
2	110052 WASHER, 1.875 X .563 X .125, FLAT
3	110166 BOLT, 1/2-13 X 2.0 SHCS
4	110220 BOLT, 1/2-13 X 1, WIZ FLANGE
5	110442 BOLT, 1/2-13 X 1.25
6	110610 NUT, 1/2-13
7	110613 NUT, CASTLE 3/4-16
8	110658 WASHER, 1/2" FLAT STANDARD
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

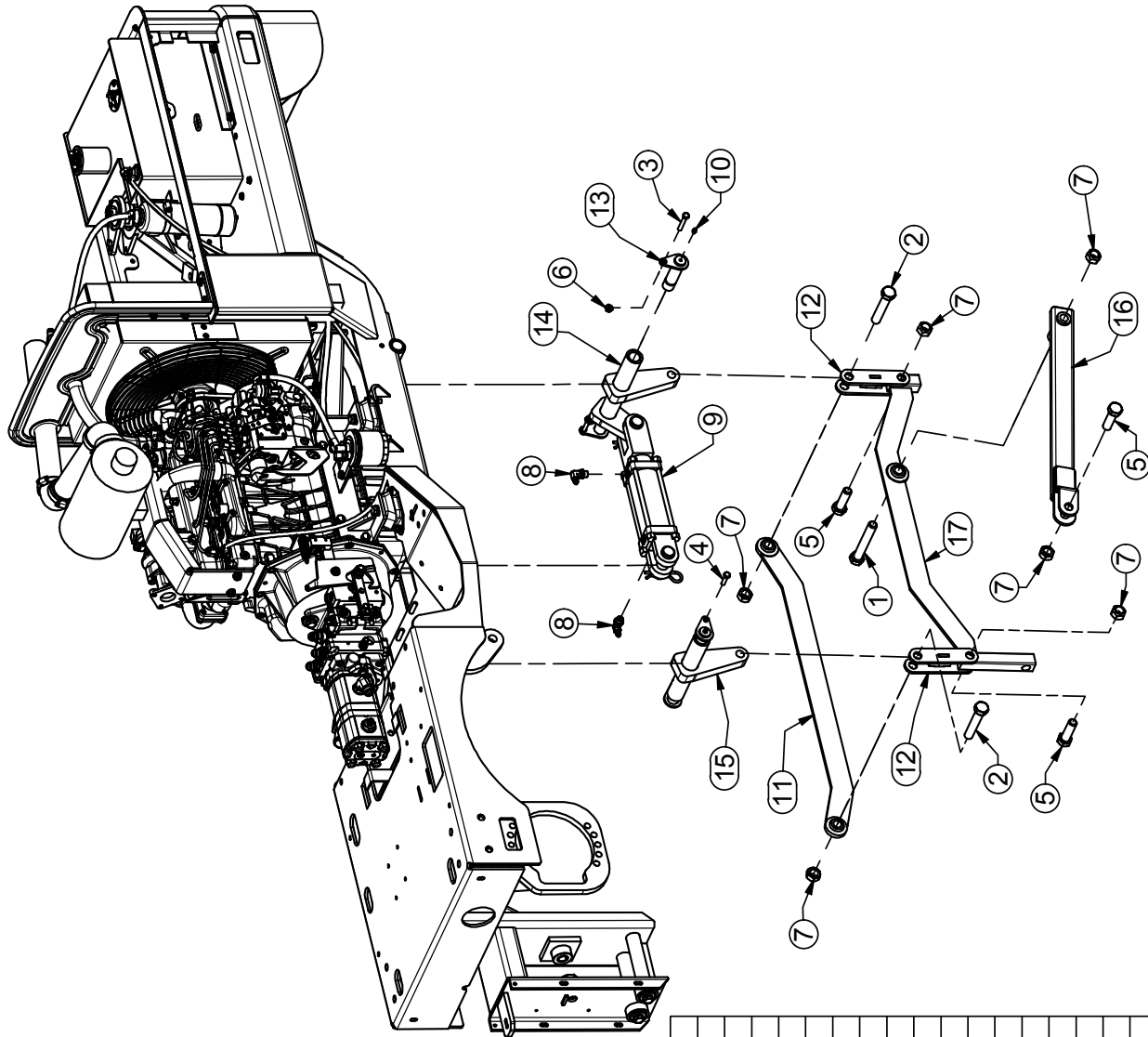
REAR STABILIZER ARM ASSEMBLY



ASSEMBLY STATION #1: 875001

4/23/2019

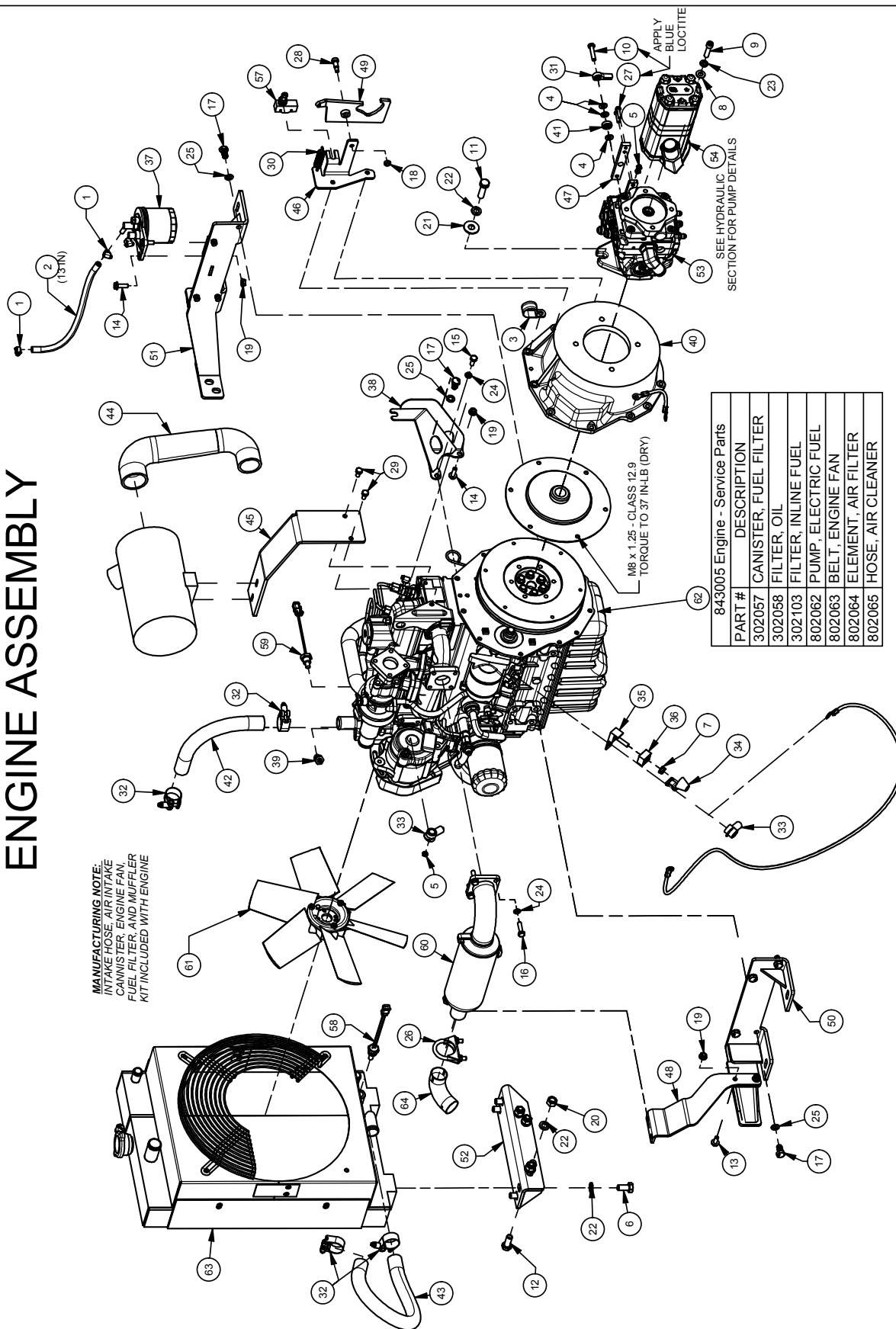
DECK LINKAGE INSTALLATION



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 W/IZ 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

ENGINE ASSEMBLY



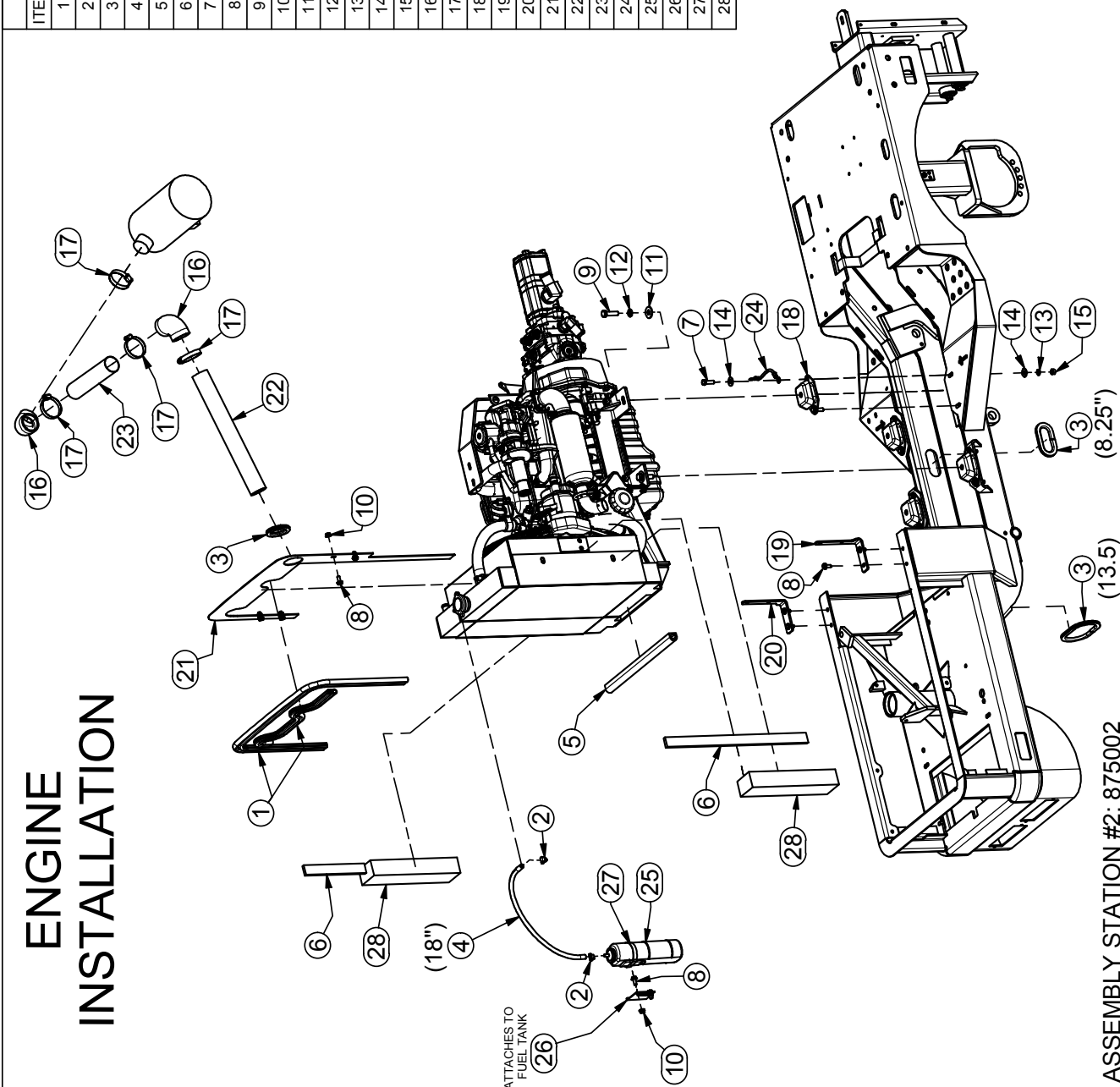
ASSEMBLY STATION #2: 875002

7/17/2019

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	315186	Weldment, Kubota Throttle Mnt
7	110141	NUT, M8 X 1.25 WIZFLANGE	39	332004	Sender, Water, 3/8 Npt
8	110155	WASHER, 3/8" FLAT SAE	40	342011	ADAPTER - PUMP, KUBOTA 1505, KIT
9	110178	BOLT, 3/8-16 X 1.5 SHCS	41	540079	BEARING, BALL, 1620RS
10	110377	BOLT, 5/16-18 X 1-1/2	42	801002	HOSE, UPPER RADIATOR
11	110419	BOLT, 1/2-13 X 1.75	43	801003	HOSE, LOWER RADIATOR
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	815099	WELDMENT, RADIATOR MOUNT
21	110658	WASHER, 1/2" FLAT STANDARD	53	823024	PUMP, PM10 PROP 1.24 CI/.43 CI
22	110666	WASHER, 1/2" LOCK	54	823025	PUMP, DOUBLE GEAR 1.16 CI / .49 CI
23	110672	WASHER, 3/8" LOCK	55	830063	CABLE, POSITIVE BATTERY
24	110674	WASHER, 5/16" LOCK	56	832001	CABLE, GROUND
25	110689	WASHER, 10mm LOCK	57	832002	SWITCH ROLLER PLUNGER
26	110779	CLAMP, 1 1/2" EXHAUST	58	832076	Switch, 190 F Temp, 8MB, N.C. Rising
27	110931	BOLT, M6x1 x 25 Gr 8.8	59	832079	SWITCH, 215 F TEMP, 6MP, N.O. RISING
28	111070	BOLT, 3/8 X .625 SHOULDER SHCS	60	842017	MUFFLER KIT, KUBOTA C31
29	111089	BOLT, M8x1.25 x 16 Gr 8.8	61	842018	FAN, ENGINE COOLING
30	111149	SPRING, TENSION .625 x .069 x 3.0	62	843005	ENGINE, KUBOTA V1505 TIER 4F (25hp)
31	111150	ROD END, 5/16-24 RH, FEMALE	63	843006	COOLING PACKAGE, RADIATOR & OIL
32	112101	CLAMP, 1.50", T-BOLT	64	942204	EXHAUST ELBOW 1 3/8

ENGINE INSTALLATION



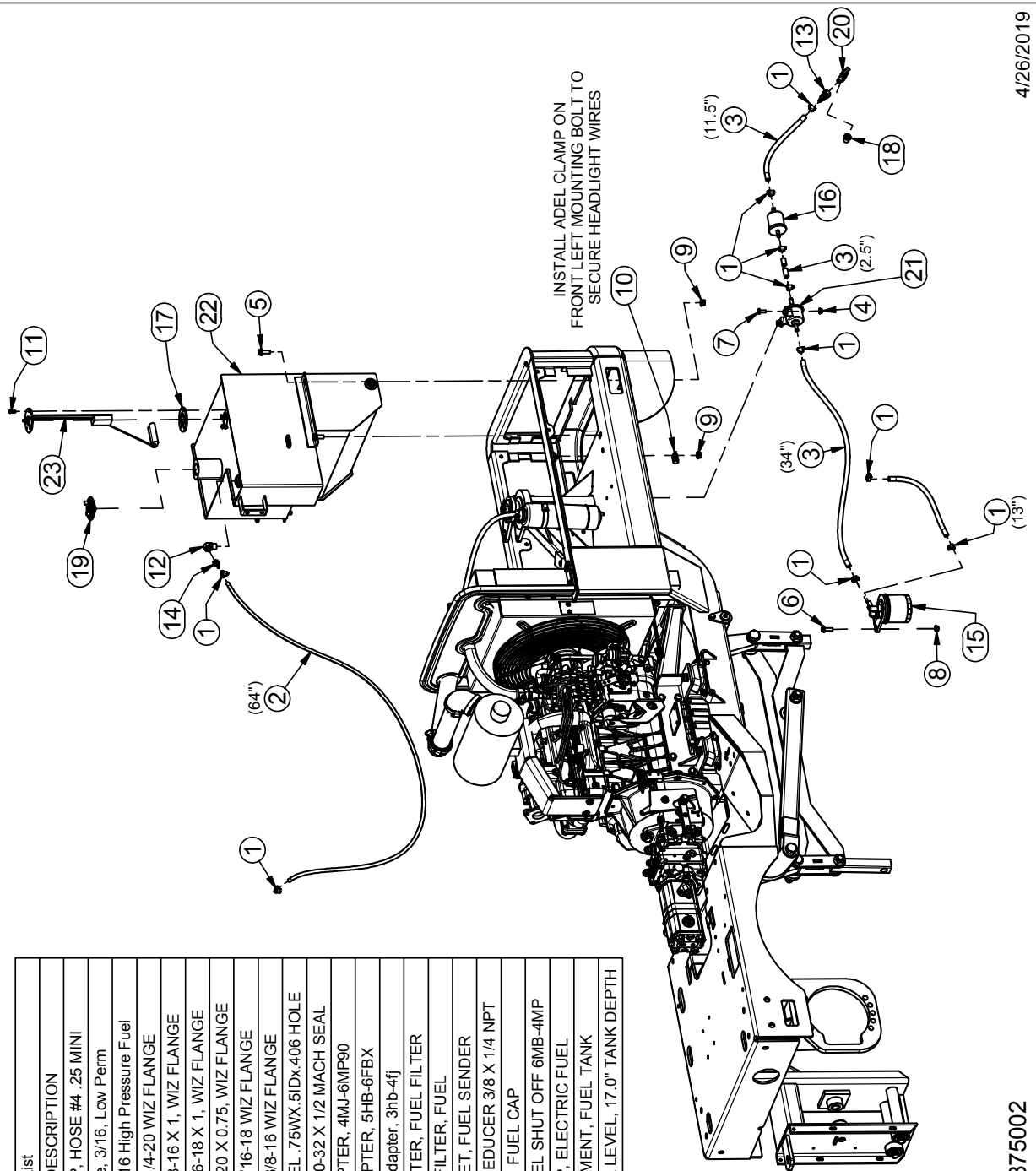
Parts List	
ITEM	PART # DESCRIPTION
1	100360 Molding, Bulb
2	100361 CLAMP, HOSE #4 .25 MINI
3	100365 Molding, Edge
4	102001 Hose, 5/16, Vacuum Tube
5	102004 D-SEAL, RUBBER 1.00" x 1.00" x 16.25"
6	102088 Foam Tape, 3/8 X 1 1/4
7	10425 BOLT, 3/8-16 X 1.25
8	110444 BOLT, 5/16-18 X 0.75, WIZ FLANGE
9	110577 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

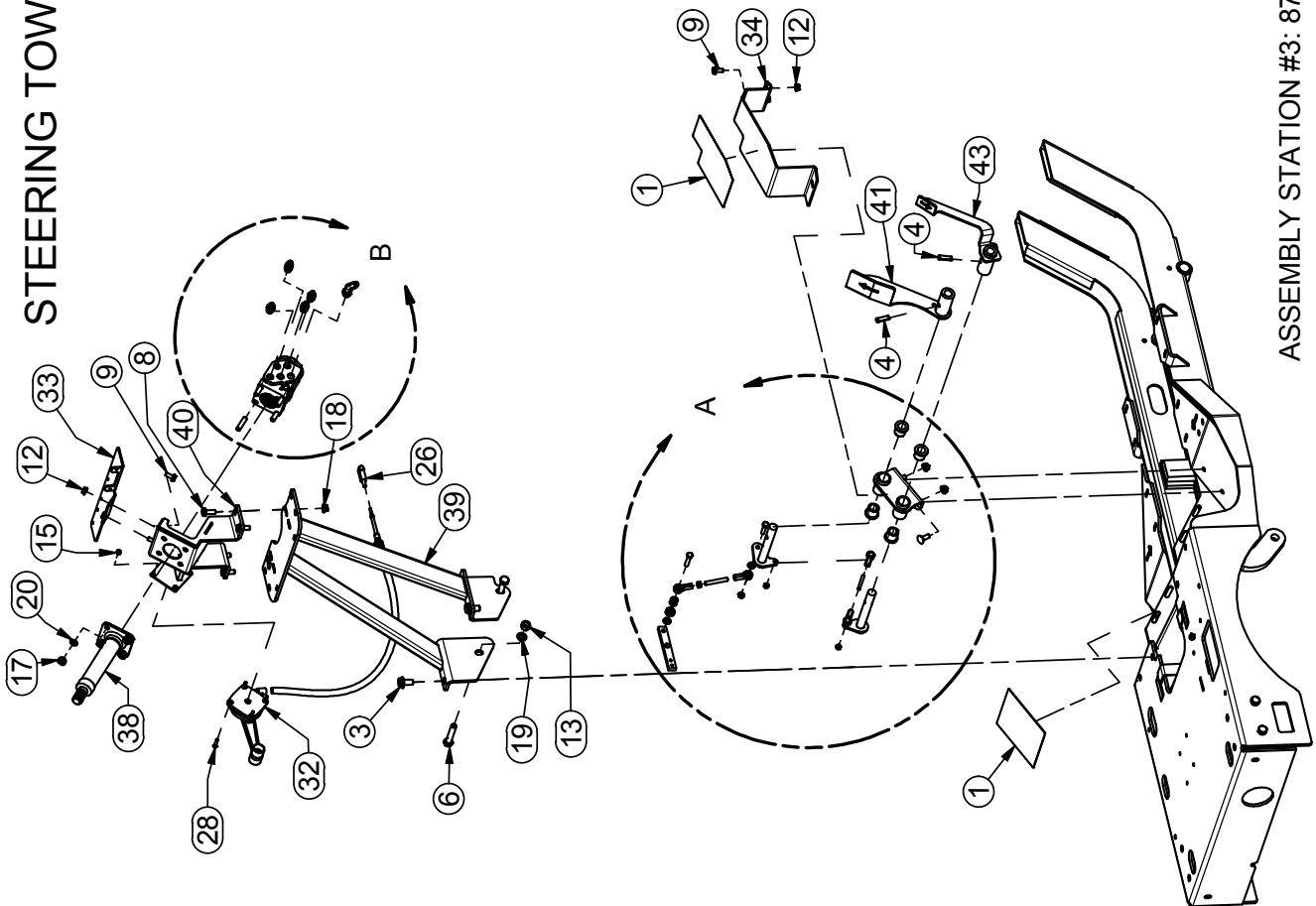
Parts List	
ITEM	PART # DESCRIPTION
1	100361 CLAMP, HOSE #4 .25 MINI
2	100708 Hose, 3/16, Low Perm
3	100756 Hose, 5/16 High Pressure Fuel
4	110290 NUT, 1/4-20 WIZ FLANGE
5	110440 BOLT, 3/8-16 X 1, WIZ FLANGE
6	110459 BOLT, 5/16-18 X 1, WIZ FLANGE
7	110468 BOLT, 1/4-20 X 0.75, WIZ FLANGE
8	110606 NUT, 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



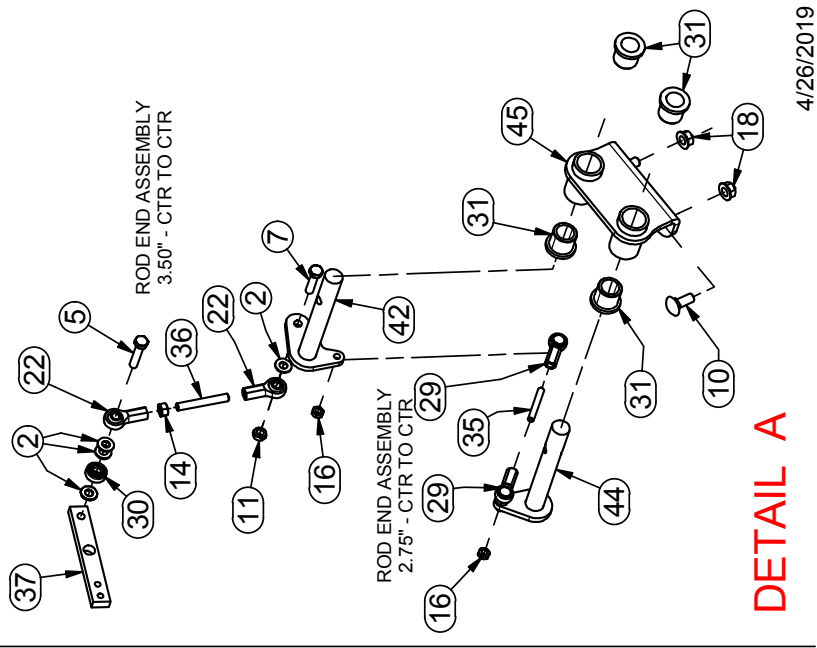
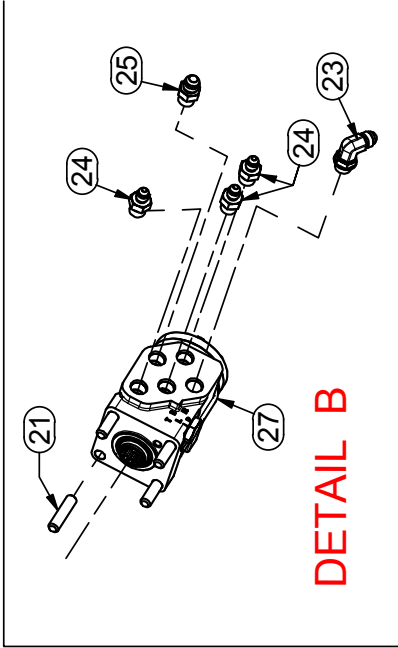
ASSEMBLY STATION #2: 875002

4/26/2019

STEERING TOWER & FOOT PEDAL INSTALLATION



ASSEMBLY STATION #3: 875003

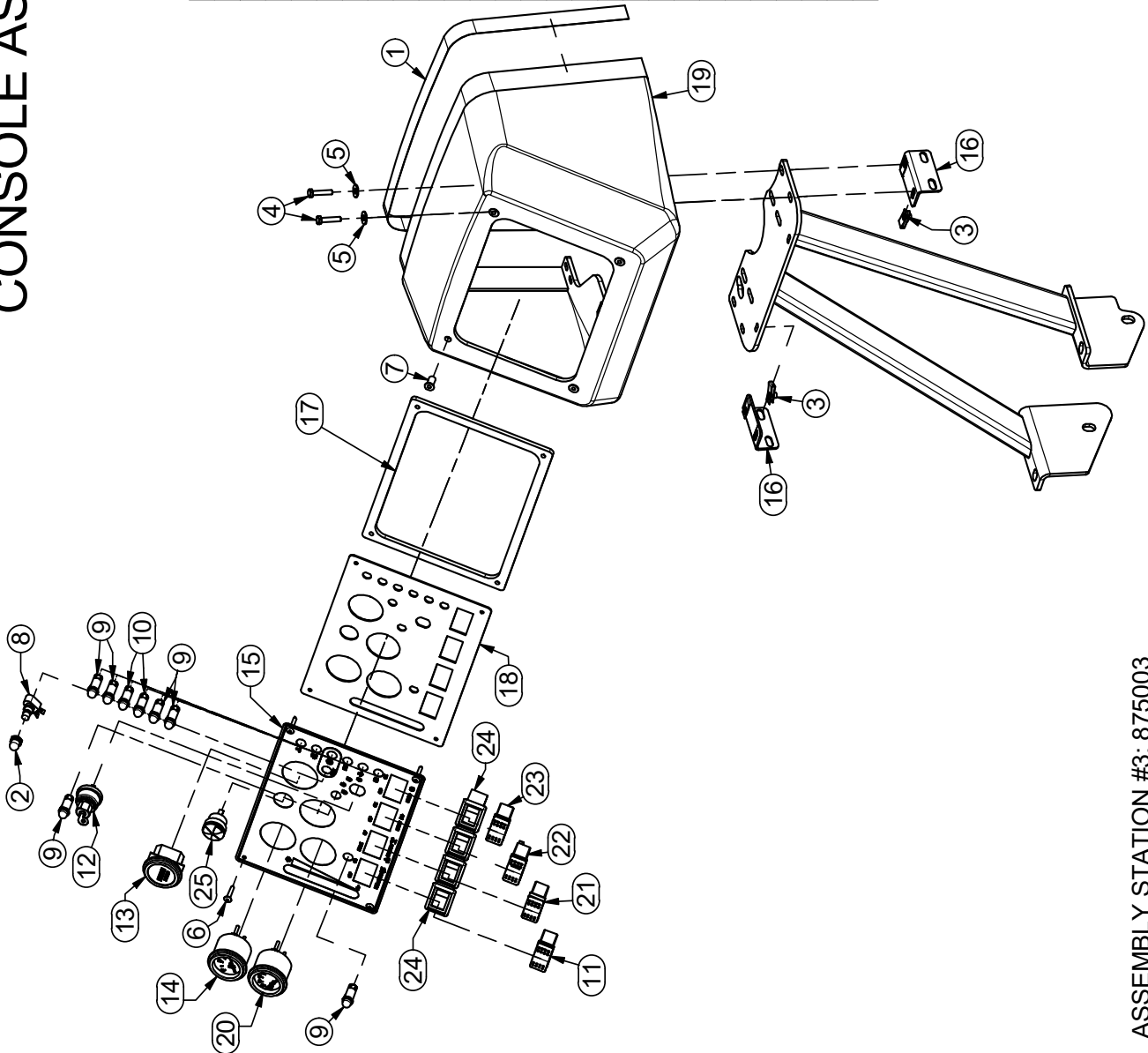


4/26/2019

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	

CONSOLE ASSEMBLY

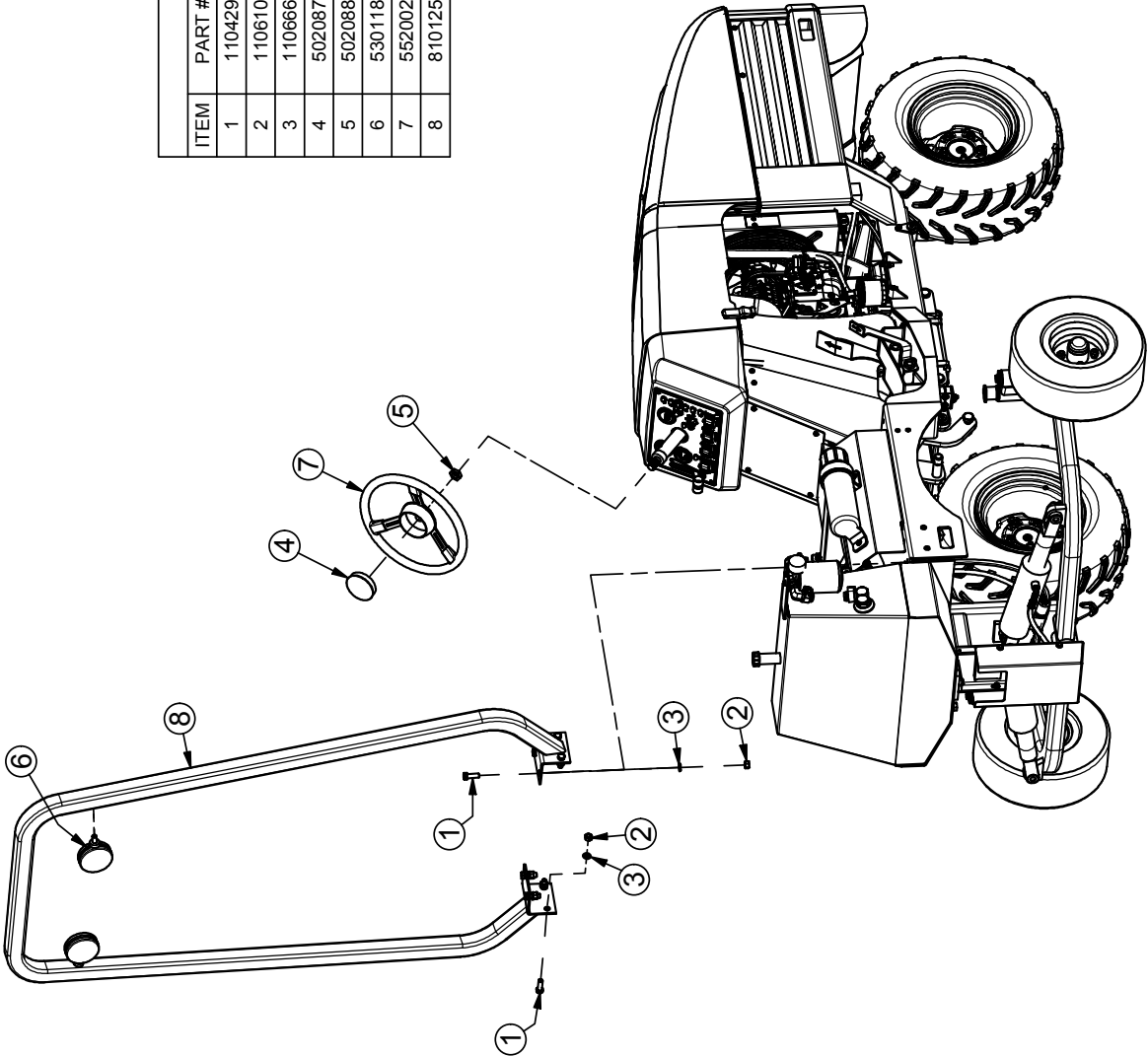


Parts List	
ITEM	PART # DESCRIPTION
1	102025 Tape, 1.00 X .005 Poly Protective
2	102123 BOOT, PUSHBUTTON SWITCH SEALING
3	110071 1/4-20 U-TYPE TAPPED HOLE
4	110430 BOLT, 1/4-20 X 1-1/4
5	110673 WASHER, 1/4" FLAT STANDARD
6	110751 SCREW, 10-32 X 1 PHILLIPS
7	110752 NUT, 10-32 THREADED INSERT
8	132090 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

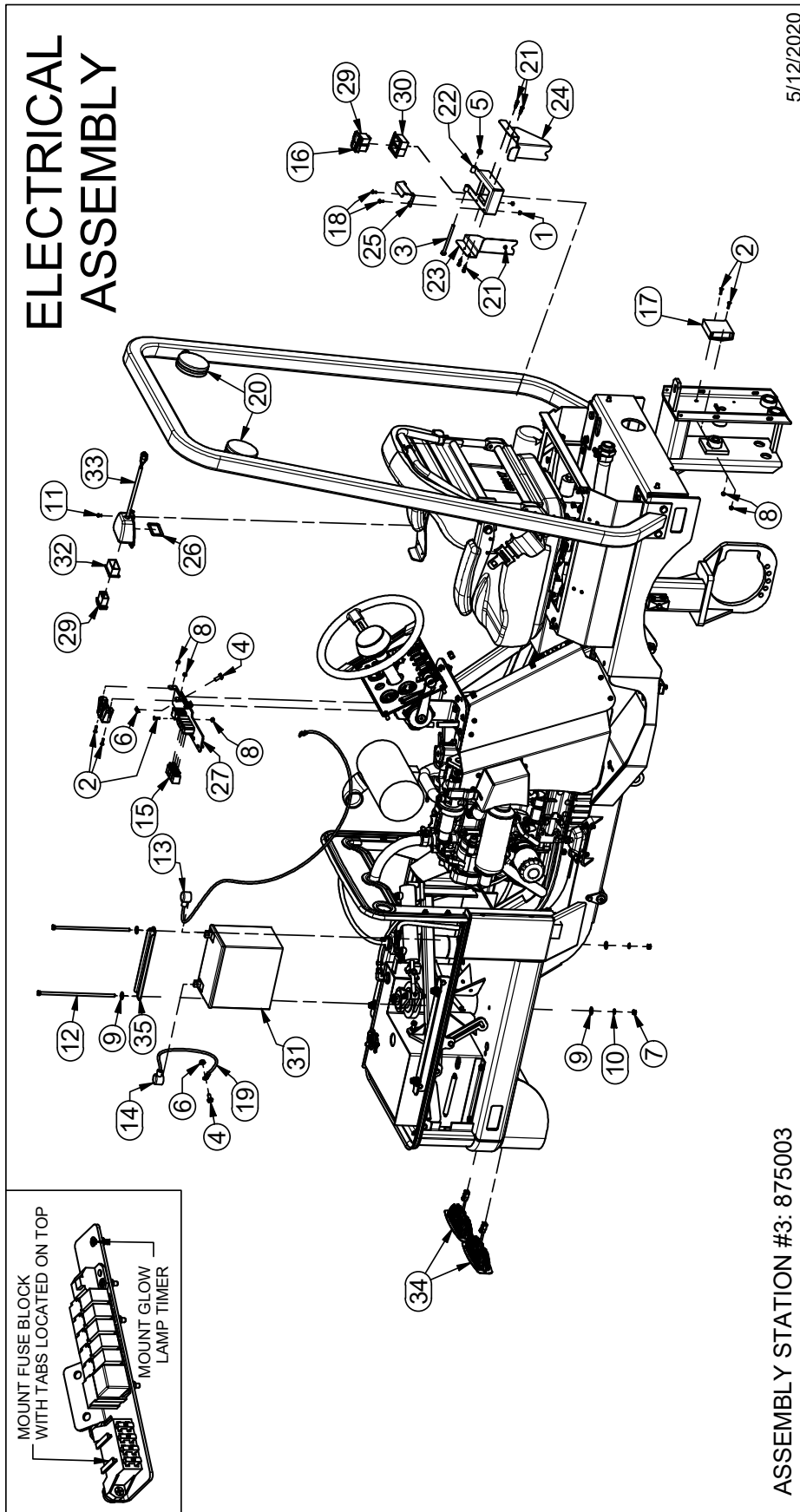
ASSEMBLY STATION #3: 875003

5/12/2020

ROPS & STEERING WHEEL INSTALLATION

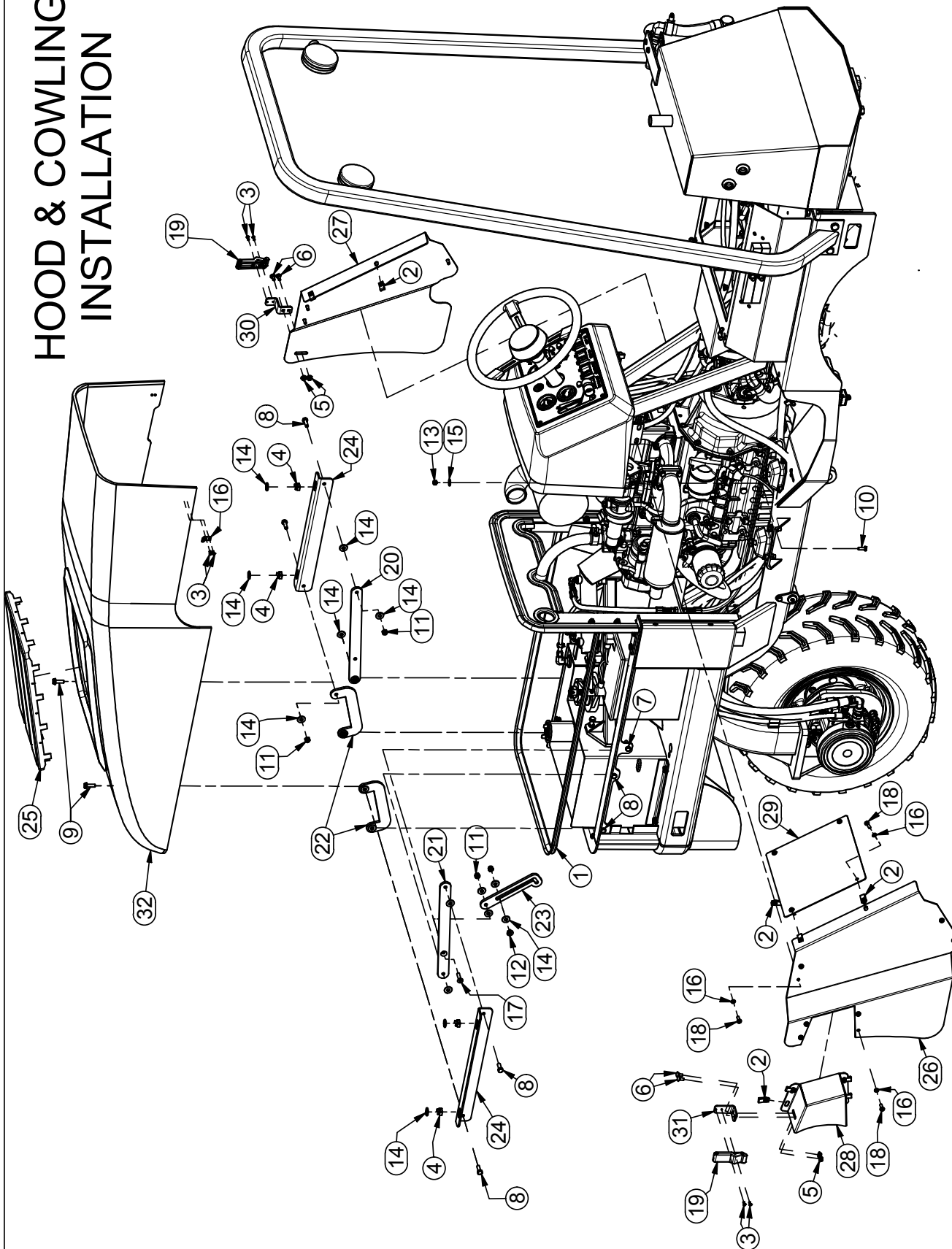


Parts List	
ITEM	PART # DESCRIPTION
1	110429 BOLT, 1/2-13 X 1.5
2	110610 NUT, 1/2-13
3	110666 WASHER, 1/2" LOCK
4	502087 Cap, Center Steering
5	502088 Nut, Steering Wheel, 13/16-20 UNEF
6	530118 HAZARD LIGHT
7	552002 STEERING WHEEL
8	810125 ROPS, ATM 72



Parts List		Parts List		Parts List	
ITEM	PART #	DESCRIPTION	ITEM	PART #	DESCRIPTION
1	110119	NUT, 10-24 LOCK	13	132069	BATTERY TERMINAL COVER, POSITIVE
2	110164	SCREW, 10-24 UNC X 0.75 Flt Hd Mach	14	132070	BATTERY TERMINAL COVER, NEGATIVE
3	110441	BOLT, 5/16-18 X 4.0	15	132099	Micro Relay
4	110444	BOLT, 5/16-18 X 0.75, WIZ FLANGE	16	132179	Switch, Paddle, Carling DPDT, 2-Pos
5	110603	NUT, 5/16-18 LOCK (NYLON)	17	332036	Inclinometer Switch, Solid-State
6	110606	NUT, 5/16-18 WIZ FLANGE	18	510960	SCREW, 10-24 X 0.5, RHMS
7	110608	NUT, 5/16-18	19	530051	GROUND CABLE
8	110631	NUT, 10-24 LOCK NYLON INSERT	20	530118	HAZARD LIGHT
9	110665	WASHER, 5/16" FLAT STANDARD	21	710587	SCREW, 3/16 X .75 TEK SELF-TAP
10	110674	WASHER, 5/16" LOCK	22	810811	LEVELING SWITCH BRACKET
11	110788	BOLT, 10-24 X .375 STAINLESS, PHILLIPS	23	810865	LEVELING SWITCH GUARD, FRONT
12	111187	BOLT, 5/16-18 X 10.0, Zinc	24	810866	LEVELING SWITCH GUARD, BACK
			25	810680	SAFETY SWITCH BRACKET
			26	810747	SWITCH SHIM
			27	810847	BRKT, RELAY & FUSE MOUNTING
			28	830063	CABLE, POSITIVE BATTERY
			29	832004	SWITCH, PADDLE, CARLING (29261)
			30	832007	SWITCH MOUNT, END
			31	832011	BATTERY, SEALED GEL W/L TERMINAL MOUNT, SWITCH (VMS)
			32	832024	MANUAL OVERRIDE, AUX SW HARNESS
			33	832061	HEADLIGHT ASSEMBLY, FLUSH MOUNT LED
			34	835027	BRKT, BATTERY HOLD DOWN
			35	970876	

HOOD & COWLING INSTALLATION



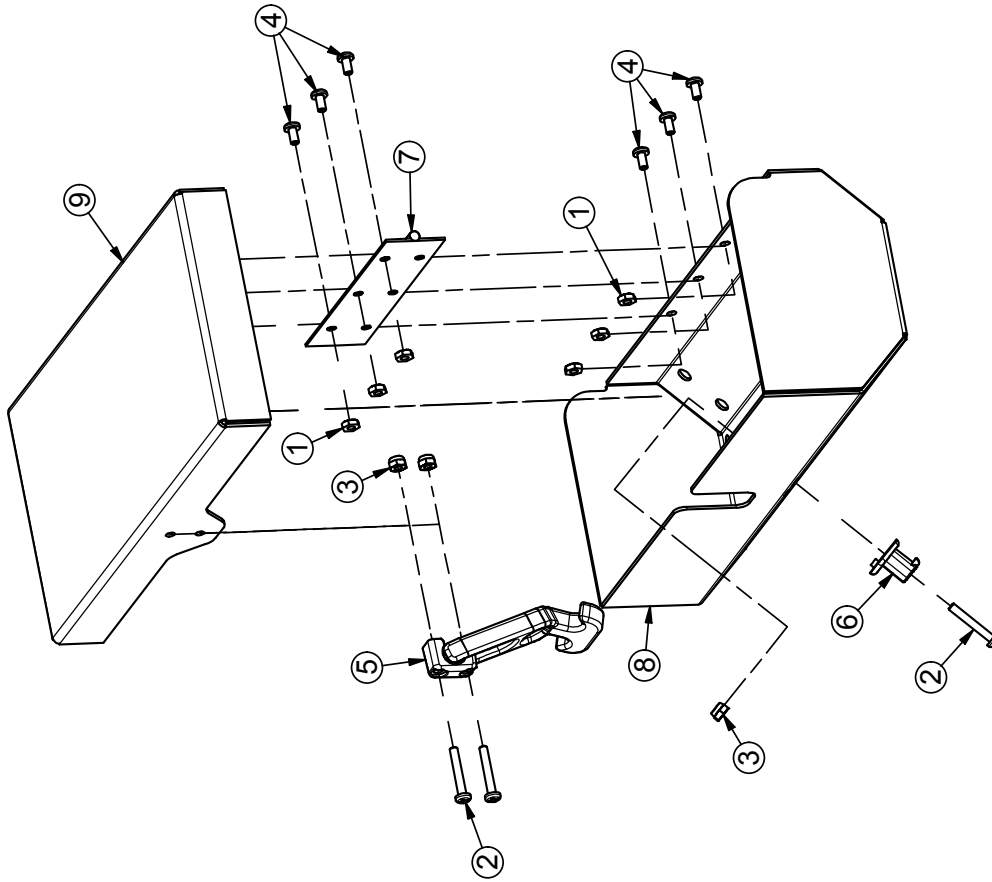
ASSEMBLY STATION #4: 875004

7/18/2019

HOOD & COWLING INSTALLATION

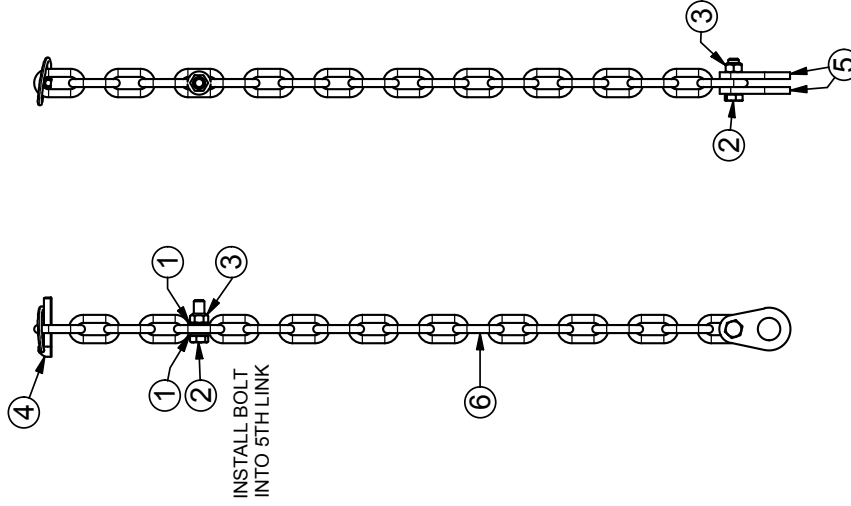
Parts List		
ITEM	PART #	DESCRIPTION
1	102127	Seal, Rubber "D", .70 x .50 w/ .30 Flap
2	110071	1/4-20 U-TYPE TAPPED HOLE
3	110102	RIVET, POP, 5/32 X .378
4	110258	NUT, 5/16-18, CAGE TINNERMAN
5	110290	NUT, 1/4-20 WIZ FLANGE
6	110358	Bolt, 1/4-20 X 0.625 in Carriage
7	110421	BOLT, 5/16-18 X 1-1/4
8	110423	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

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					

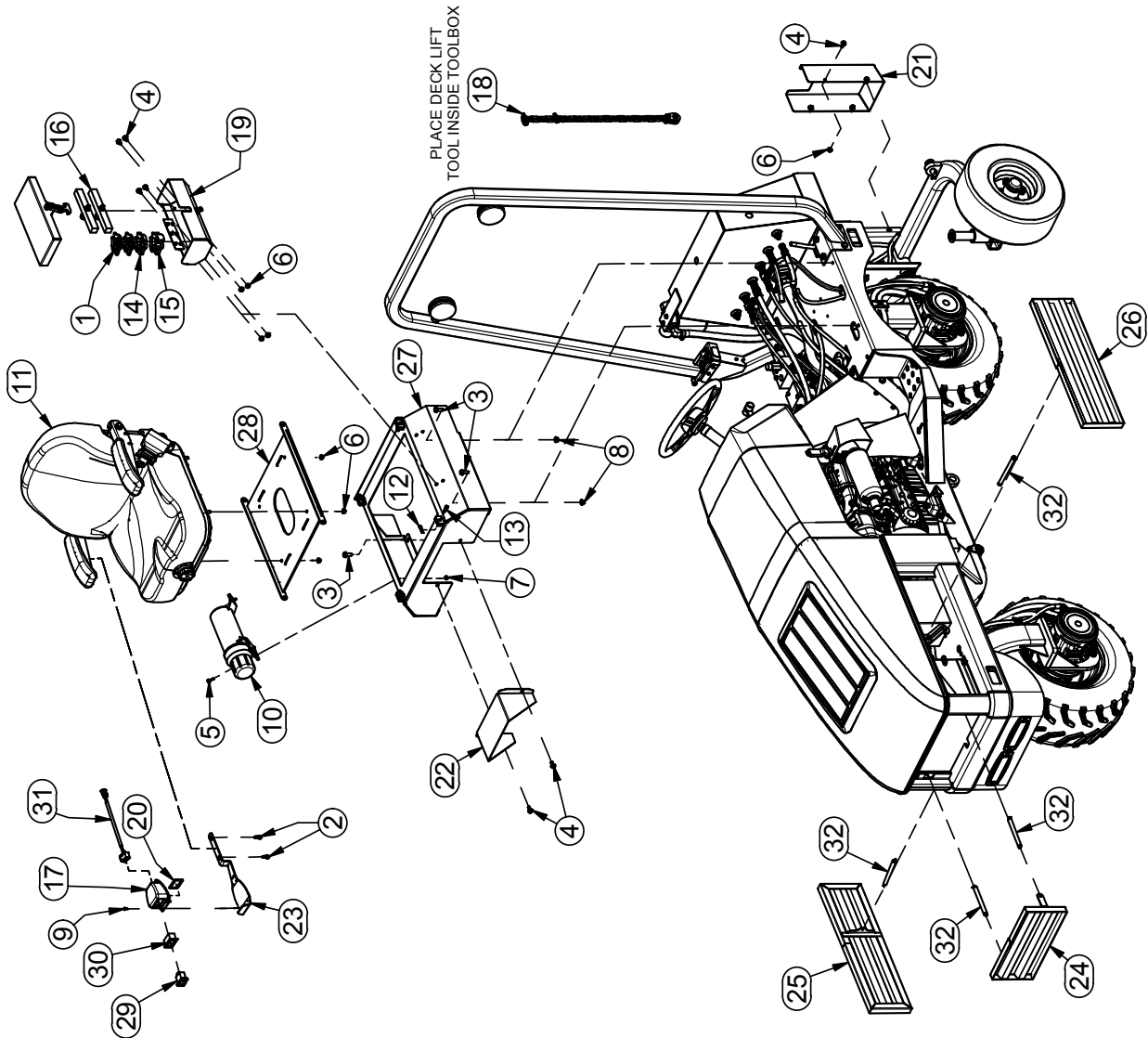
DECK LIFT ASSIST TOOL - 805016



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

SEAT & SCREENS INSTALLATION

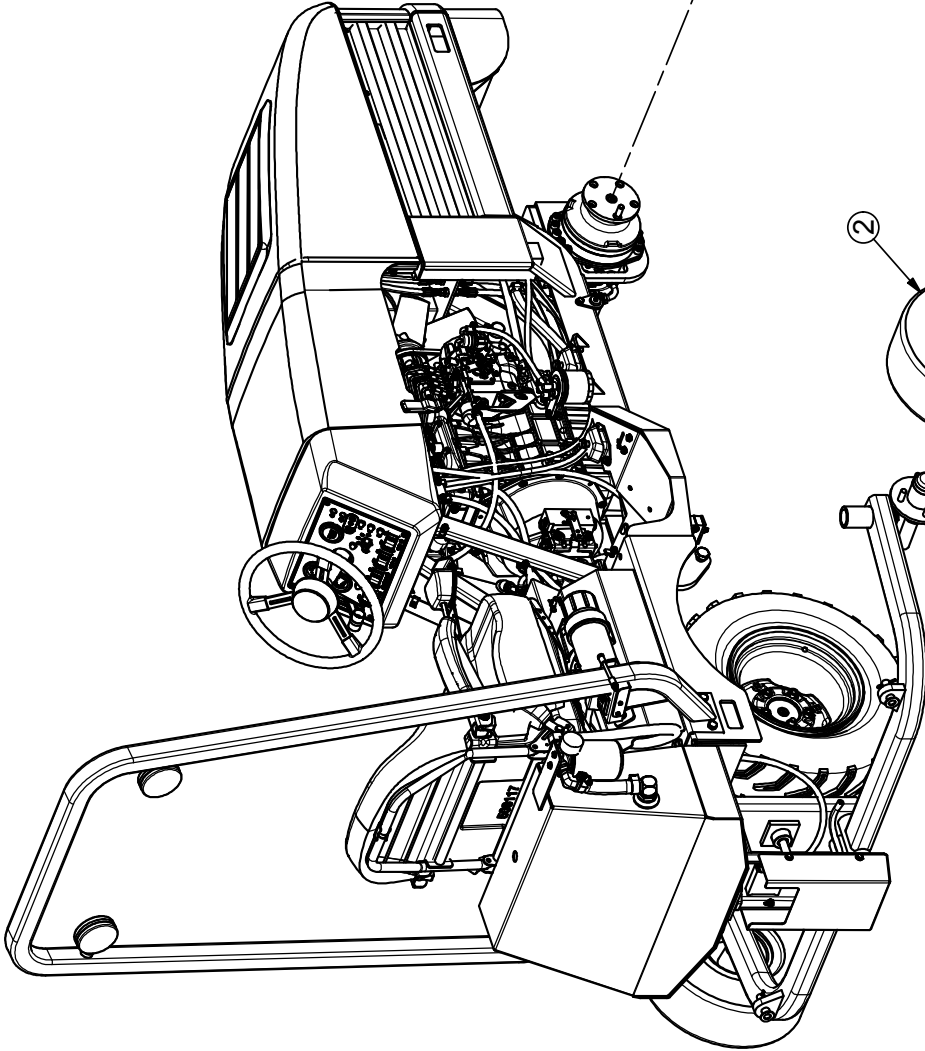
Parts List	
ITEM	DESCRIPTION
1	CYLINDER STOP, 1/4" THICK
2	SCREW, 1/4-20 X .75, WH SELF TAP
3	BOLT, 3/8-16 X 1, WIZ FLANGE
4	BOLT, 5/16-18 X 0.75, WIZ FLANGE
5	BOLT, 1/4-20 X 0.75, WIZ FLANGE
6	NUT, 5/16-18 WIZ FLANGE
7	NUT, 1/4-20 LOCK (NYLON INSERT)
8	NUT, 3/8-16 WIZ FLANGE
9	BOLT, 10-24 X .375 STAINLESS, PHILLIPS
10	HOLDER, MANUAL
11	SEAT, 13M SUSPENSION
12	CLIP, HAIRPIN 3/32 x 1.625
13	CLEVIS PIN, 5/16"
14	CYLINDER STOP, 1/2" THICK
15	CYLINDER STOP, 1" THICK
16	TOOL, BRAKE RELEASE
17	BOX, PLASTIC, MANUAL OVERRIDE
18	TOOL, DECK LIFT ASSIST
19	ASSEMBLY, TOOLBOX
20	SWITCH SHIM
21	BIN, REAR STORAGE
22	COWLING, LOWER
23	MOUNT, ARM REST SWITCH
24	GRILL, FRONT
25	GRILL, SIDE RIGHT
26	GRILL, SIDE LEFT
27	WELDMENT, SEAT BASE
28	WELDMENT, SEAT MOUNT
29	SWITCH, PADDLE, CARLING (29261)
30	MOUNT, SWITCH (VMS)
31	MANUAL OVERRIDE, AUX SW HARNESS
32	SPRING



ASSEMBLY STATION #4: 875004

7/18/2019

WHEEL & TIRE INSTALLATION



FRONT WHEEL ASSY
SAME AS REAR WHEEL

TORQUE LUGNUTS
TO 140 FT-LBS

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

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

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

DECK ASSEMBLY

Parts List		Parts List	
ITEM	PART #	DESCRIPTION	DESCRIPTION
45	812001	DUST CAP	LEVEL, SURFACE MOUNT
46	815002	CASTER YOKE WELD ASSY	Bolt, 5/16-18 X 0.75 in Carriage
47	815003	ADJUSTMENT SCREW WELD ASSY	BOLT, 1/2-20 X 1.5, GR8
48	815005	CASTER ARM WELD ASSY, LEFT	SCREW, 1/4-20 X .50 SLOT FLAT-HD
49	815006	CASTER ARM WELD ASSY, RIGHT	BOLT, 1/2-13 X 1, WIZ FLANGE
50	823016	MOTOR, DECK, BI-DIRECTIONAL, 1.65 CI	BOLT, 3/4-10 X 6.75, HHCS
			PLUG, 7/16", NYLON, SNAP LOCK
			SCREW, 8-32X1.5 PAN HEAD PHPS
			NUT, 8-32 LOCK NYLON
			BOLT, 1/2-13 X 2.0
			BOLT, 3/8-16 X 1, WIZ FLANGE
			BOLT, 1/2-13 X 1.25
			NUT, 5/16-18 WIZ FLANGE
			NUT, 1/2-13, UNITORQUE LOCK
			NUT, 3/4-10, UNITORQUE LOCK
			NUT, 1/2-20, UNITORQUE LOCK
			NUT, 3/8-16 WIZ FLANGE
			WASHER, 1/2 FLAT SPECIAL 1.5 OD
			WASHER, 7/16" FLAT STANDARD
			WASHER, 1/2 EXT. TOOTH LOCK
			ROLL PIN, 1/4 X 0.75
			WASHER, M5 FLAT STAINLESS
			ADAPTER, 4MJ-4MB90
			ADAPTER, 10MJ-10MB
			ROLL PIN, 1/4 X 1.5
			KEY, 1/4 X 1/4 X 1.0 in
			PIN, WIRE LOCK
			BLADE, RIGHT
			BLADE, LEFT
			BUSHING, BLADE MOUNT
			CASTER WHEEL ASSY
			BUSHING, MFI-1620-24
			COVER, VINYL, 1/2 RND X 6.0
			BUSHING, MSI-1620-16
			PLASTIC BUMPER, MOTOR GUARD
			HUB, BLADE MOUNT MACHINED
			WASHER, BLADE MOUNT
			BLADE MOUNT
			BLADE SADDLE
			CRANK PIVOT
			DECK WELDMENT, RIGHT
			DECK WELDMENT, LEFT
			SHIELD, OUTER FOOT
			SHIELD, REAR FOOT

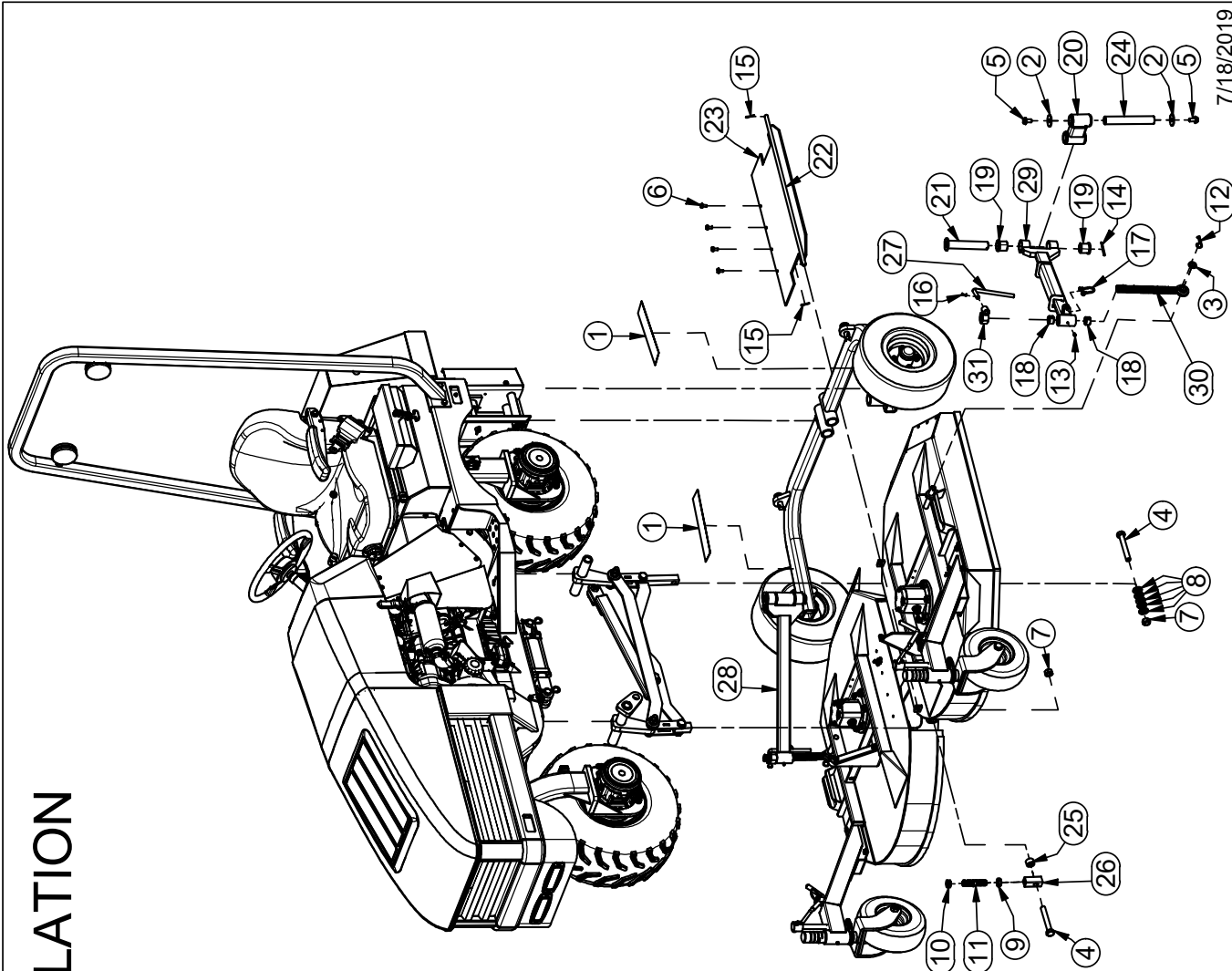
GREASE ZERK FACES
TO OUTSIDE OF WHEEL

4/29/2019

ASSEMBLY STATION #4: 875004

DECK INSTALLATION

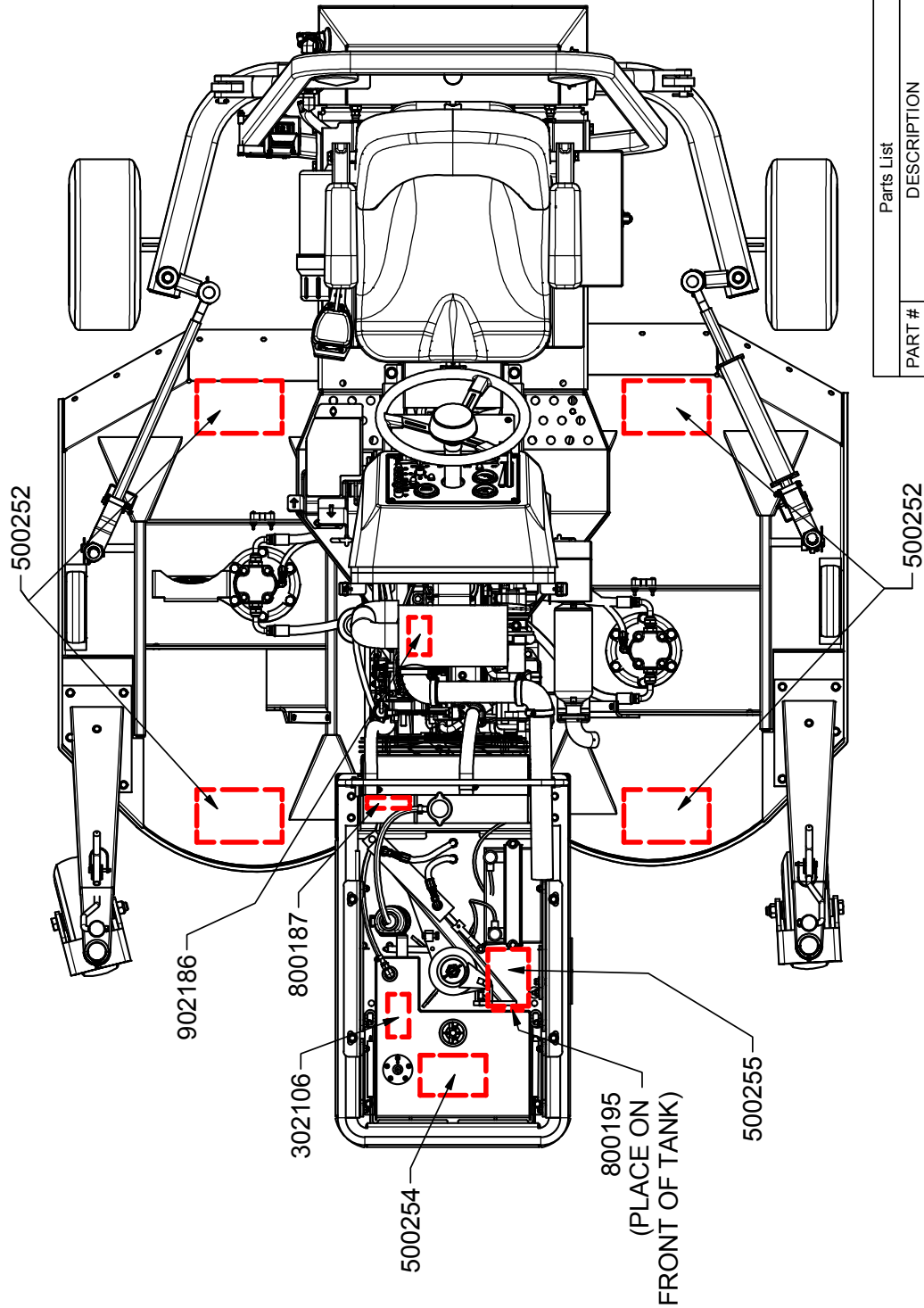
Parts List	
ITEM	PART # DESCRIPTION
1	100449 TRACTION PAD, FLEX-TREAD 2.75" x 1.0'
2	110052 WASHER, 1.875 X .563 X .125, FLAT SPECIAL
3	110068 WASHER, 1.25 OD X .75 ID X .075
4	110070 BOLT, 3/4-10 X 5.0
5	110220 BOLT, 1/2-13 X 1, WIZ FLANGE
6	110444 BOLT, 5/16-18 X 0.75, WIZ FLANGE
7	110625 NUT, 3/4-10, 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, EQUALIZER 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	815027 OUTER DECK ARM WELDMENT, W/O STEP
29	815028 OUTER DECK ARM WELDMENT, W/TREAD-GRIP STEP
30	815042 SLIDE ASSY SHORT, OUTER DECK ADJ
31	815107 WELDMENT, DECK ADJUSTMENT



ASSEMBLY STATION #4: 875004

7/18/2019

DECAL LAYOUT - TOP VIEW



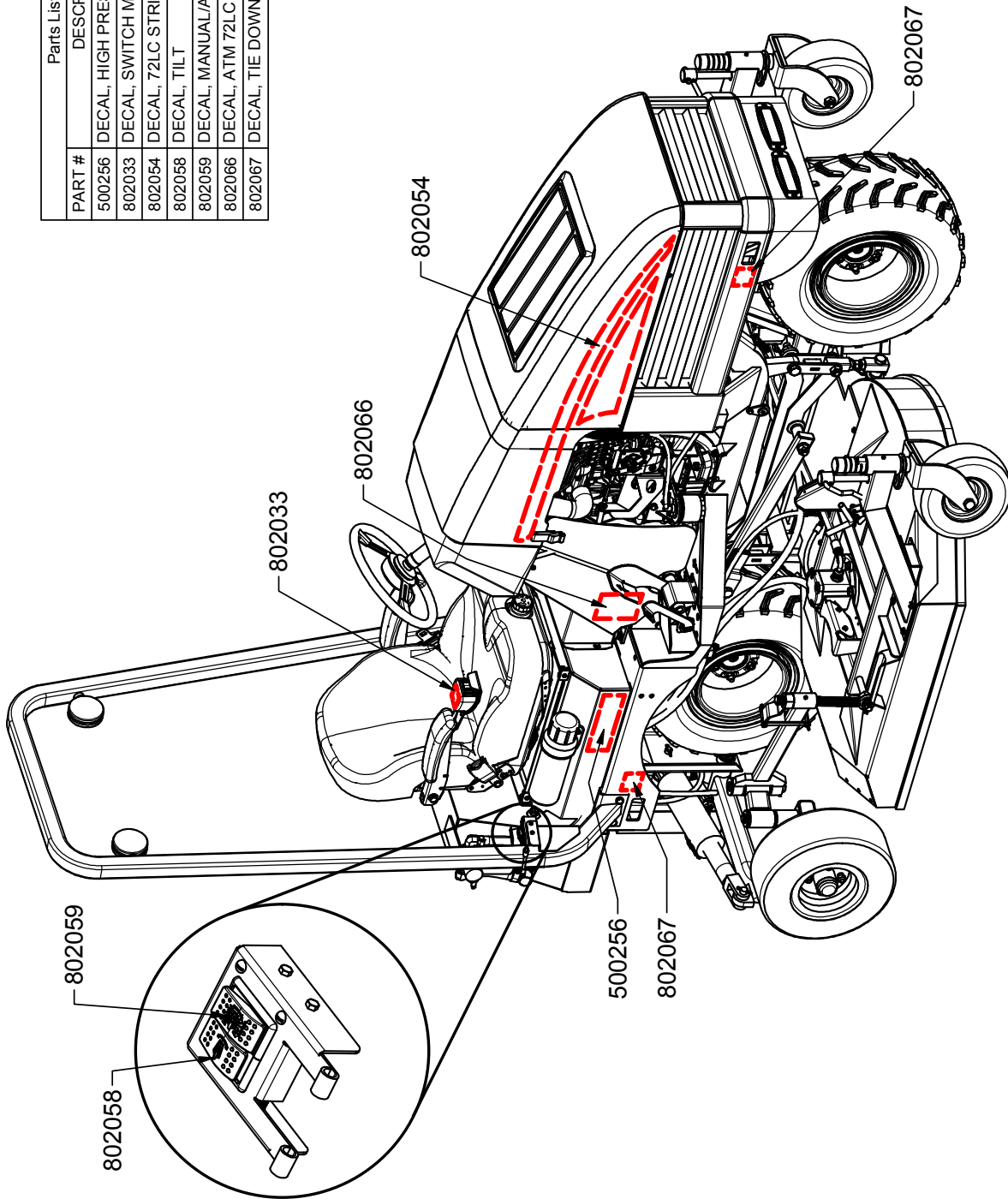
Parts List	
PART #	DESCRIPTION
302106	DECAL, DIESEL FUEL
500252	DECAL, DANGER, ROTATING BLADES
500254	DECAL, FUEL
500255	DECAL, BATTERY
800187	DECAL, SERVICE RADIATOR
800195	DECAL, RECYCLE BATTERY
902186	DECAL, EPA STANDARDS

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

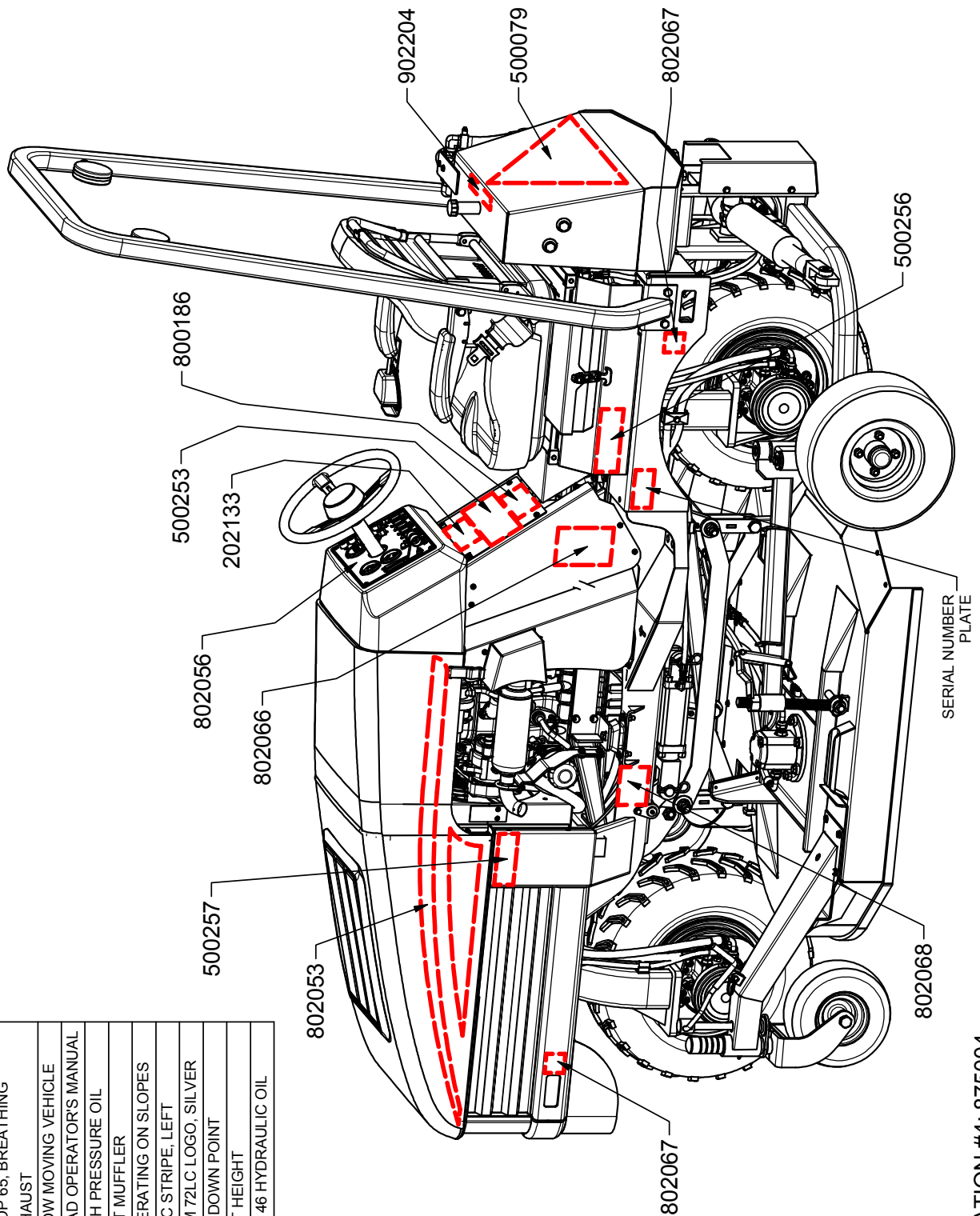


ASSEMBLY STATION #4: 875004

3/4/2019

DECAL LAYOUT - LH SIDE

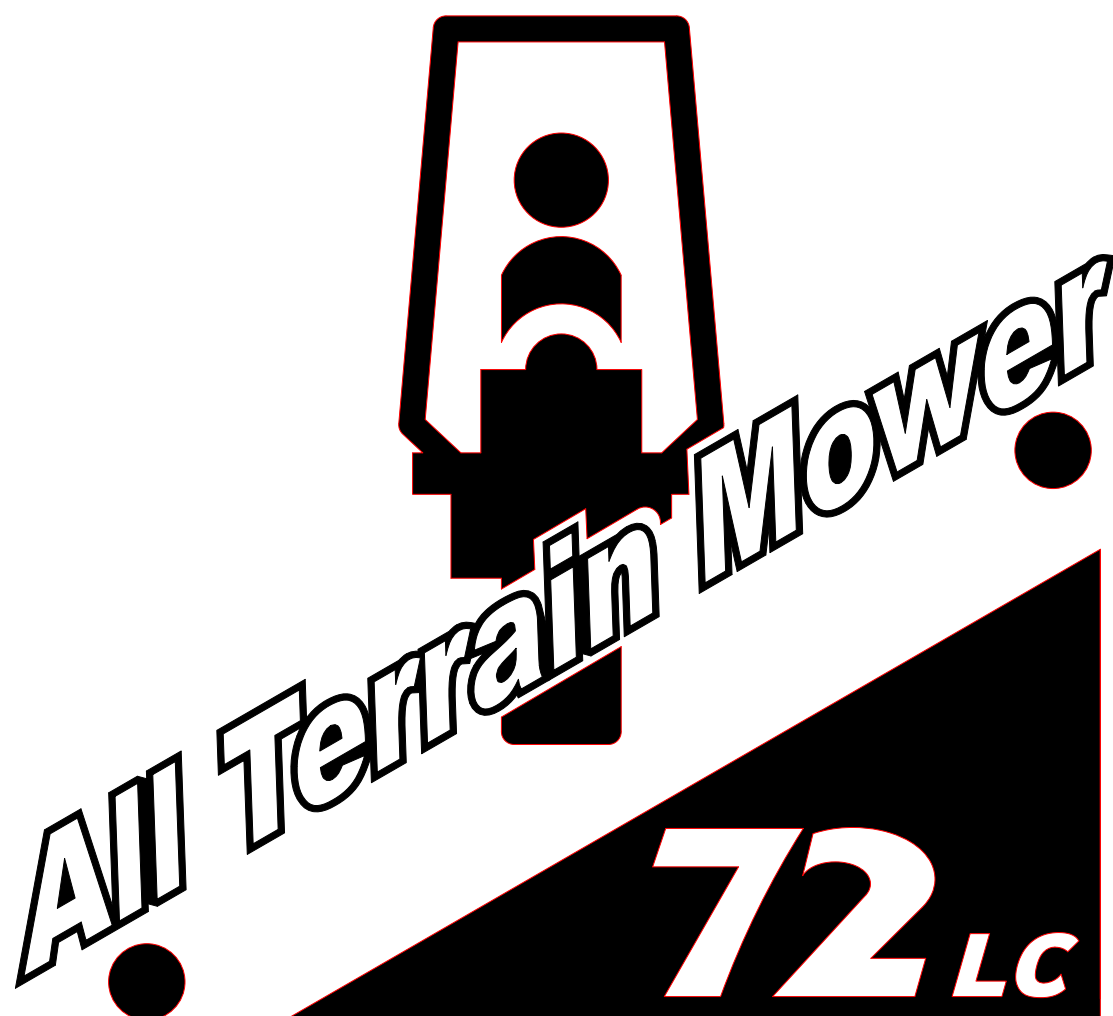
Parts List	
PART #	DESCRIPTION
202133	DECAL, PROP 65, BREATHING DIESEL EXHAUST
500079	DECAL, SLOW MOVING VEHICLE
500253	DECAL, READ OPERATOR'S MANUAL
500256	DECAL, HIGH PRESSURE OIL
500257	DECAL, HOT MUFFLER
800186	DECAL, OPERATING ON SLOPES
802053	DECAL, 72LC STRIPE, LEFT
802066	DECAL, ATM 72LC LOGO,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



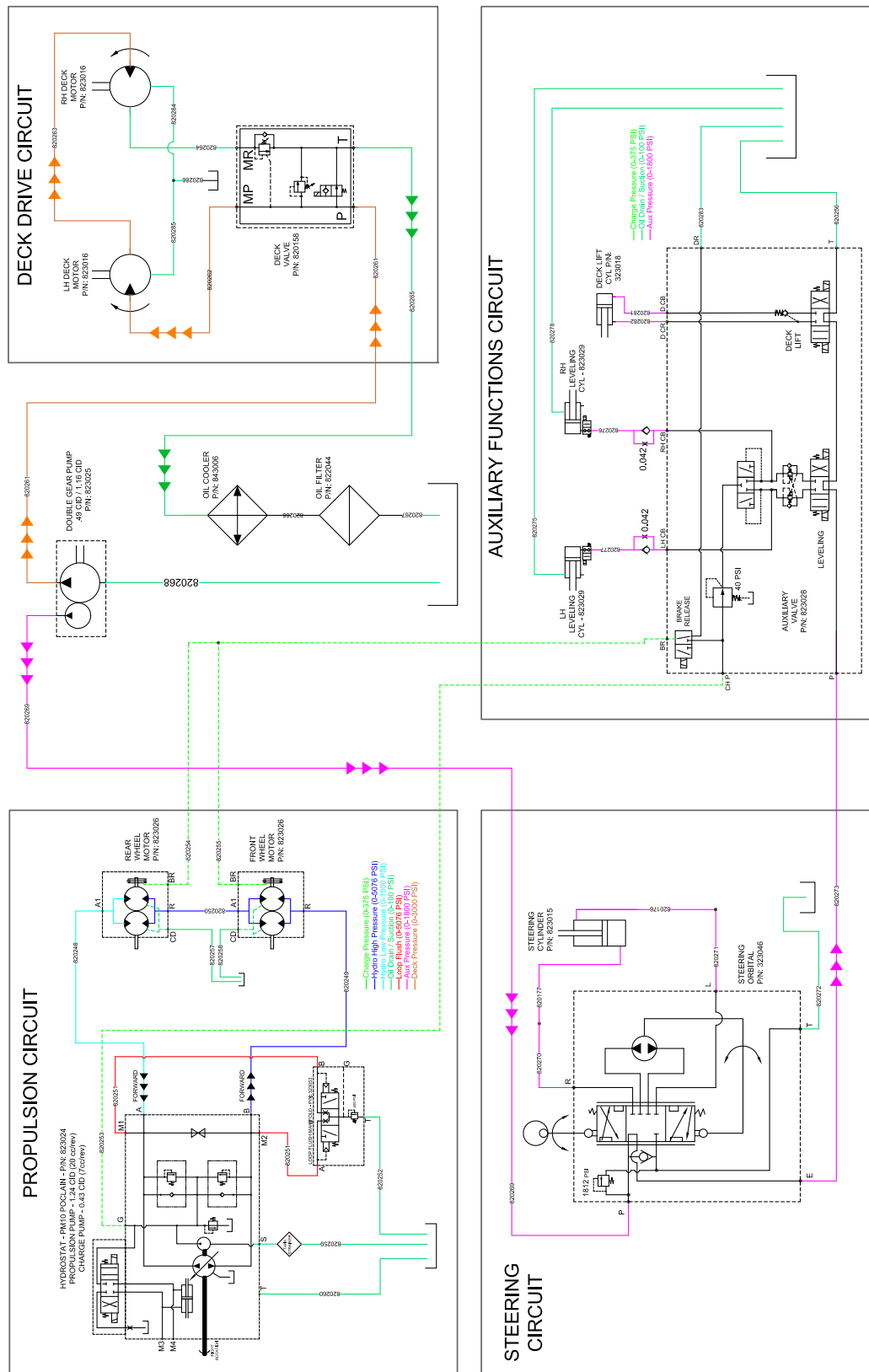
ASSEMBLY STATION #4: 8750004

3/4/2019

Hydraulic Systems

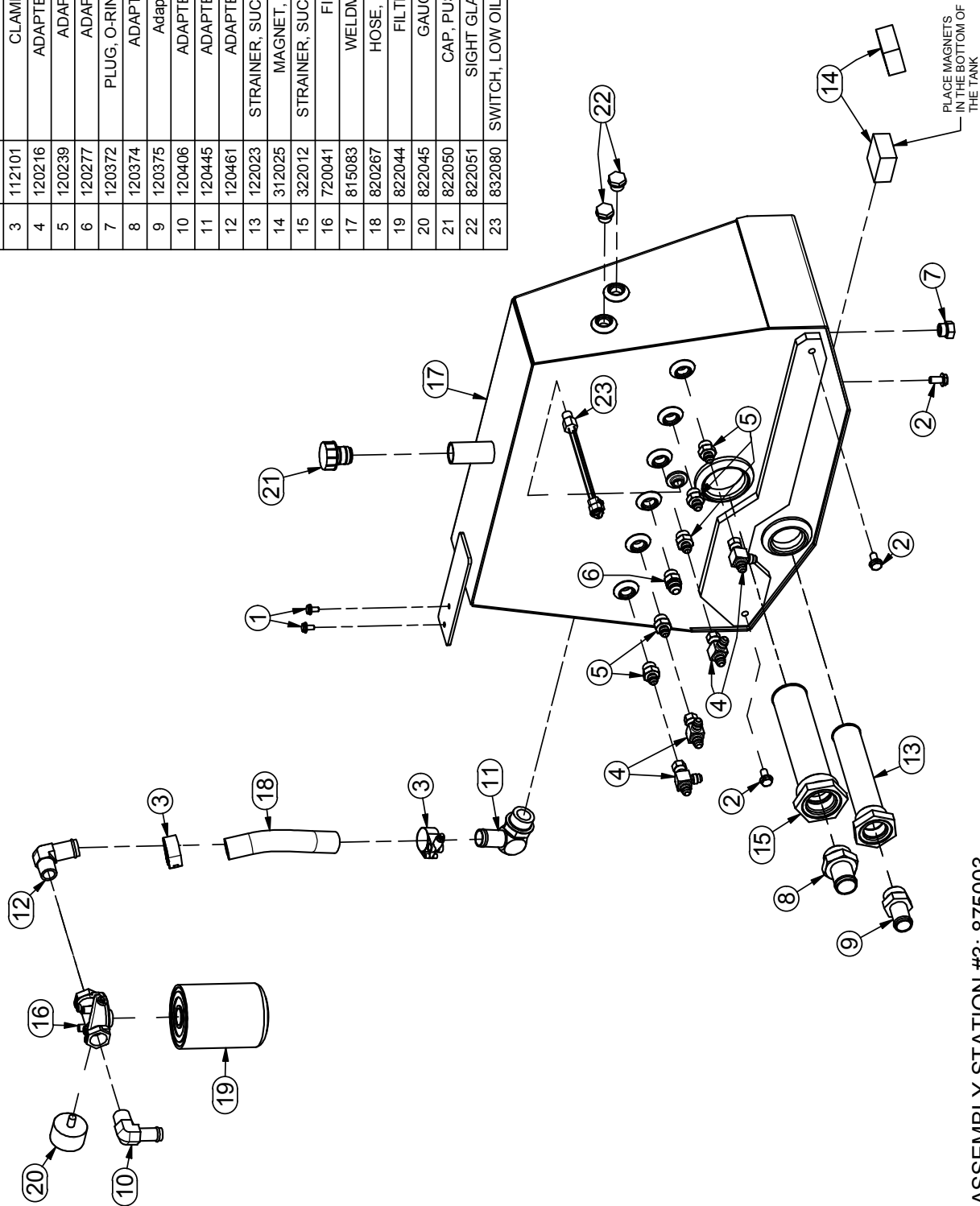


72LC Hydraulic Schematic



HYDRAULIC TANK ASSEMBLY

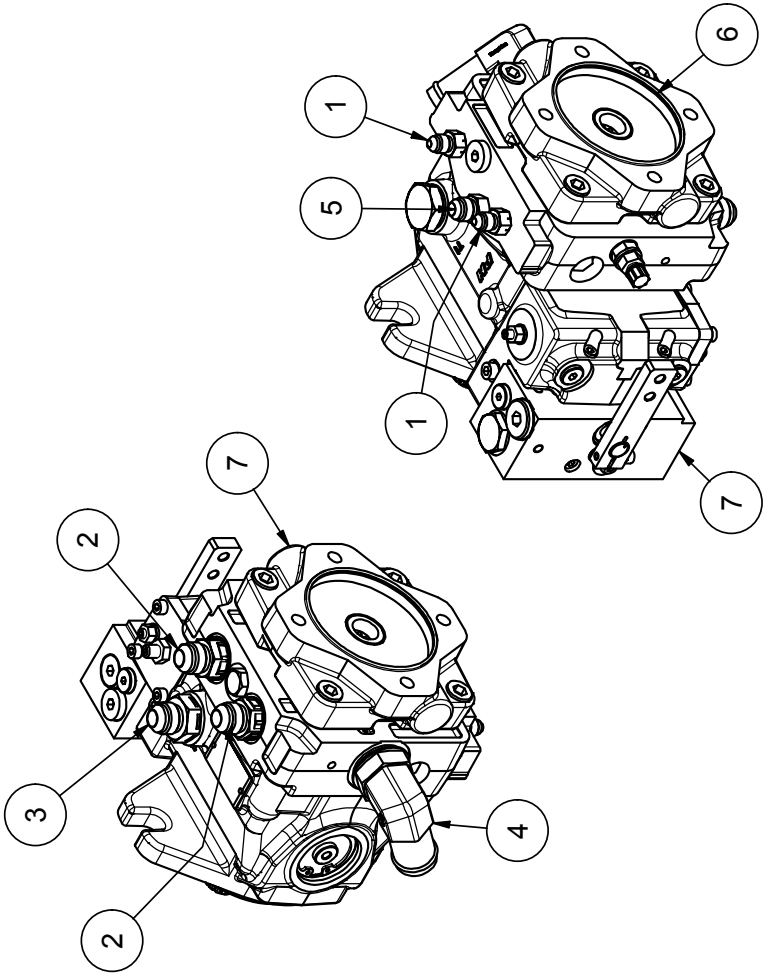
Parts List	
ITEM	PART # DESCRIPTION
1	110434 BOLT, 1/4-20 X 0.5, WIZ FLANGE
2	110437 BOLT, 3/8-16 X 0.75, WIZ FLANGE
3	112101 CLAMP, 1.50", T-BOLT
4	120216 ADAPTER, 6MJ-6FJX-6MJ
5	120239 ADAPTER, 6MJ-8MB
6	120277 ADAPTER, 8MJ-8MB
7	120372 PLUG, O-RING-8, EXTERNAL HEX
8	120374 ADAPTER, 20BH-20MB
9	120375 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 POLYIMIDE
23	832080 SWITCH, LOW OIL LEVEL, 1/4 MNPT, N.C. DRY



ASSEMBLY STATION #3: 875003

3/8/2018

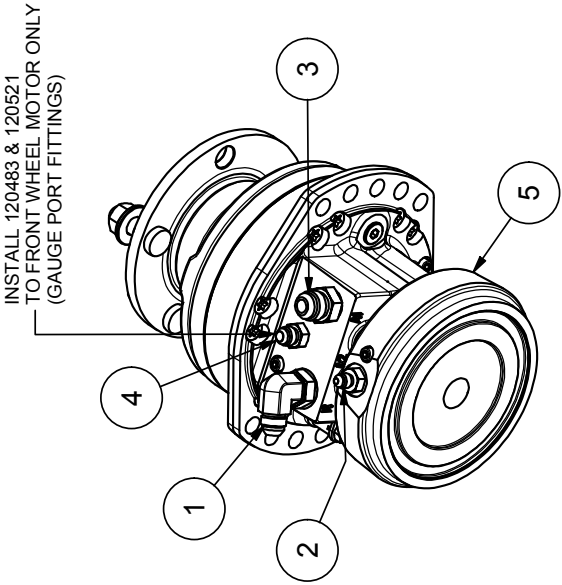
PROPULSION PUMP
ASSEMBLY



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

ASSEMBLY STATION #3: 875003

WHEEL MOTOR
ASSEMBLY



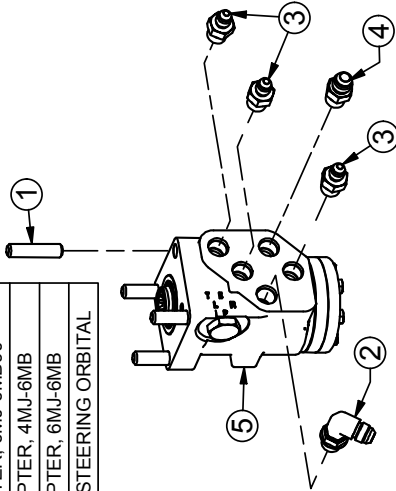
Parts List		
ITEM	QTY	PART # DESCRIPTION
1	1	120245 ADAPTER, 8MJ-10MB90
2	1	120249 ADAPTER, 4MJ-6MB
3	1	120251 ADAPTER, 10MJ-10MB
4	1	120319 ADAPTER, 6MJ-6MB
5	1	823026 MOTOR, WHEEL 30.5 CI

7/18/2019

VALVE ASSEMBLIES

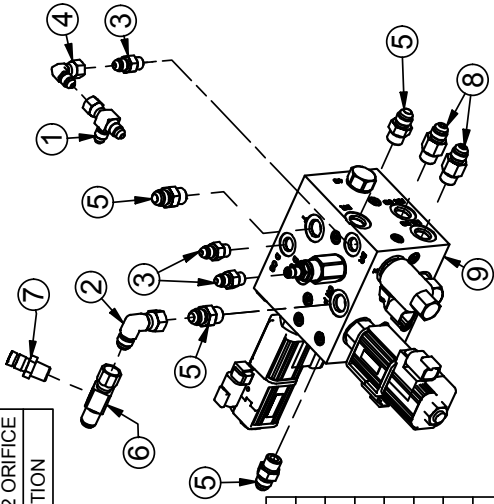
STEERING ORBITAL ASSEMBLY

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



AUXILIARY VALVE ASSEMBLY

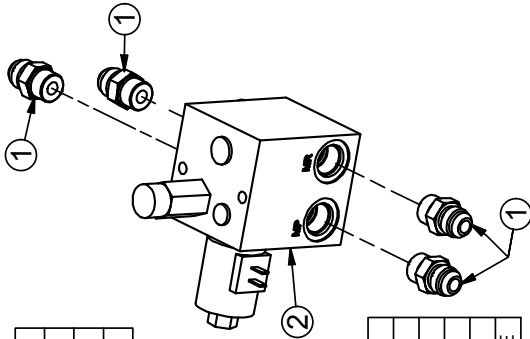
Parts List	
ITEM	PART # DESCRIPTION
1	120215 ADAPTER, 4MJ-4FJX-4MJ
2	120218 ADAPTER, 6MJ-6FJX90
3	120233 ADAPTER, 4MJ-4MB
4	120266 ADAPTER, 4MJ-4FJX90
5	120319 ADAPTER, 6MJ-6MB
6	120483 FITTING, GAGEPORT 6MJ-6FJX-4FP
7	120521 FITTING - TEST PORT
8	120724 VALVE, CHECK, 6MB-6MJ, .042 ORIFICE
9	823028 VALVE, 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

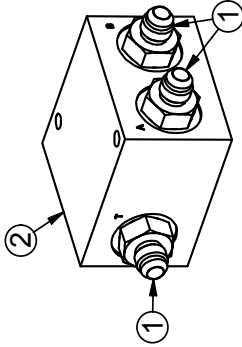
Parts List	
ITEM	PART # DESCRIPTION
1	120251 ADAPTER, 10MJ-10MB
2	820158 DECK VALVE



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

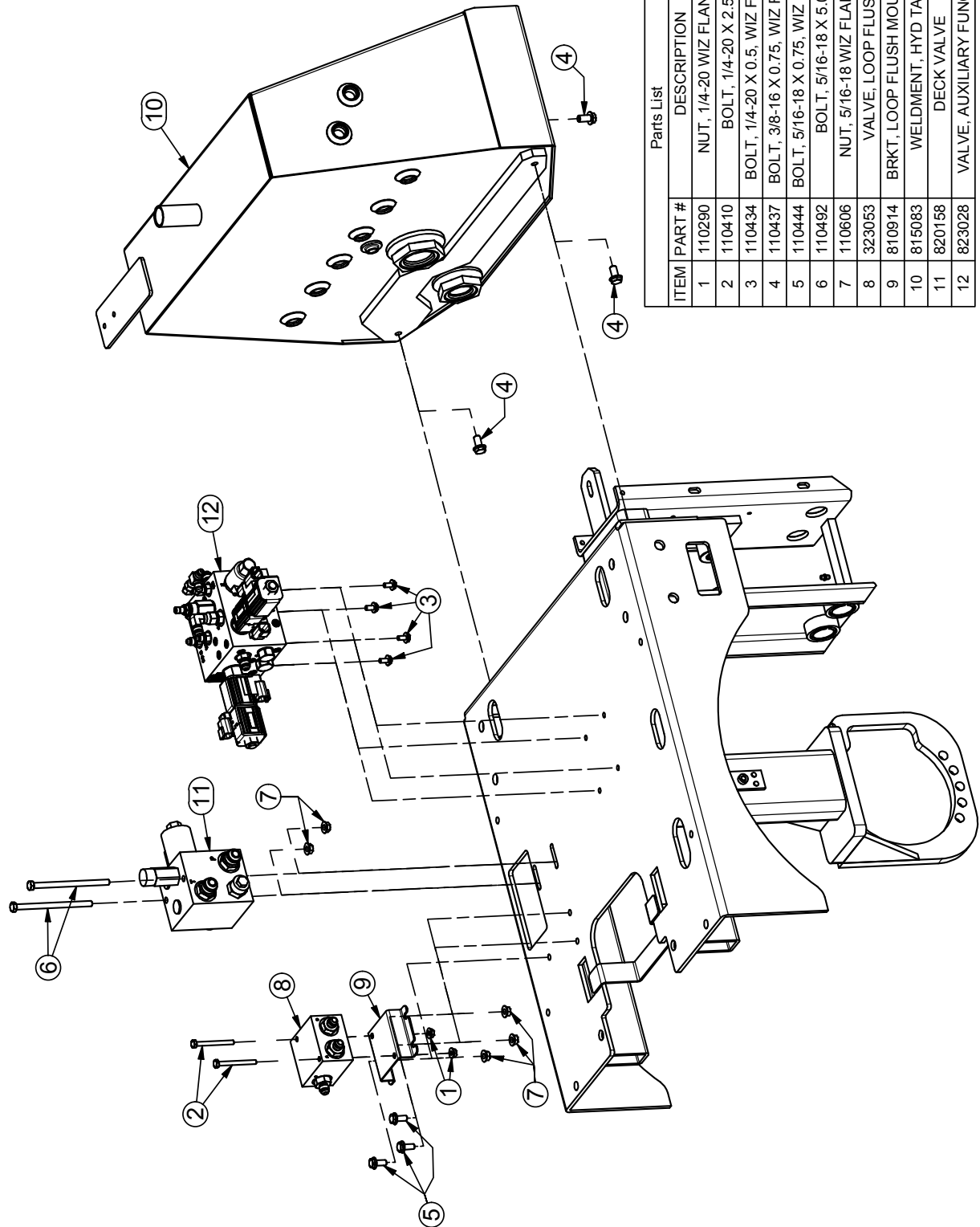
Parts List	
ITEM	PART # DESCRIPTION
1	120239 ADAPTER, 6MJ-8MB
2	323053 VALVE, LOOP FLUSH



ASSEMBLY STATION #3: 875003

4/26/2019

VALVE & TANK INSTALLATION

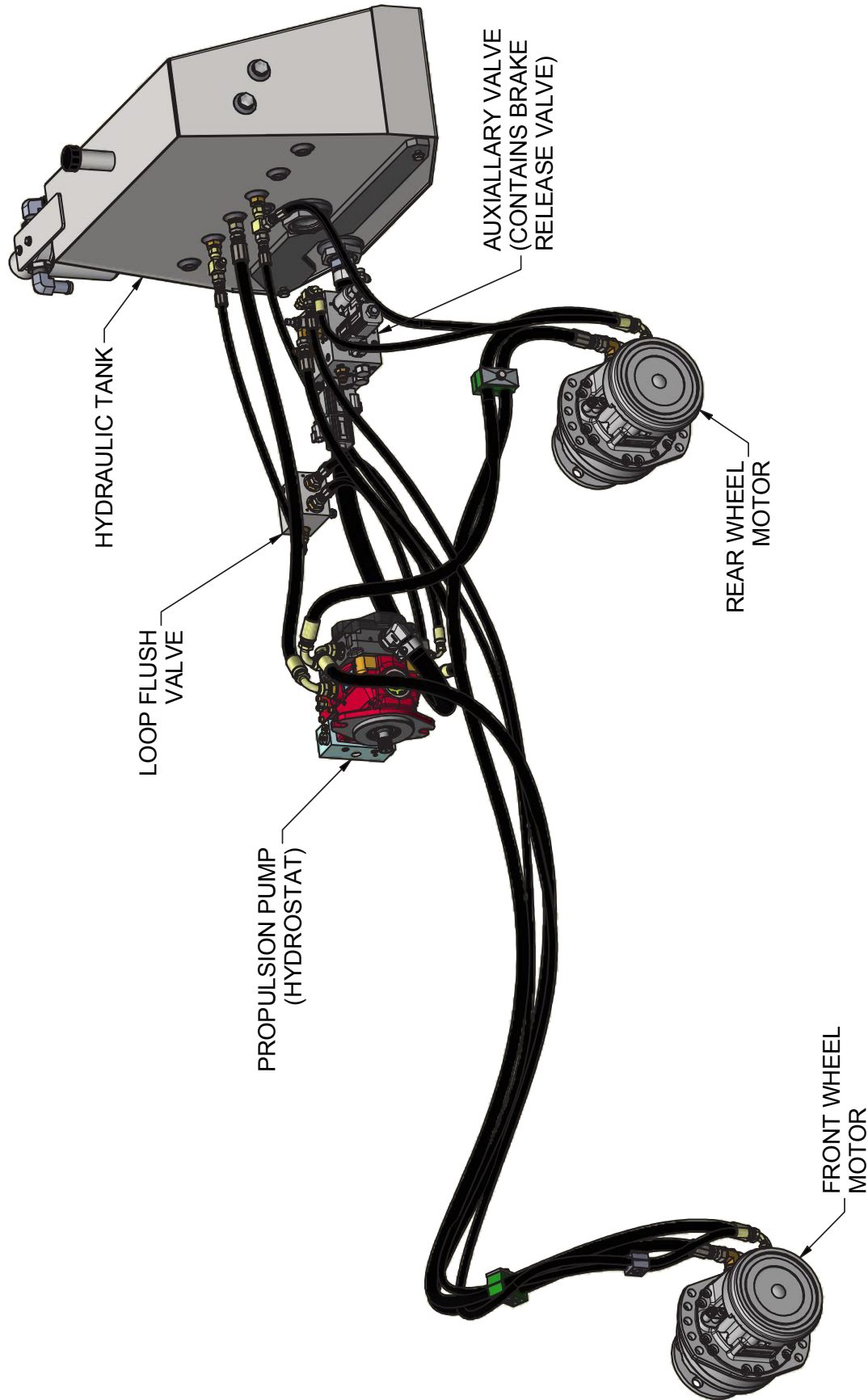


Parts List	
ITEM	PART # DESCRIPTION
1	110290 NUT, 1/4-20 WIZ FLANGE
2	110410 BOLT, 1/4-20 X 2.5
3	110434 BOLT, 1/4-20 X 0.5, WIZ FLANGE
4	110437 BOLT, 3/8-16 X 0.75, WIZ FLANGE
5	110444 BOLT, 5/16-18 X 0.75, WIZ FLANGE
6	110492 BOLT, 5/16-18 X 5.0
7	110606 NUT, 5/16-18 WIZ FLANGE
8	323053 VALVE, LOOP 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

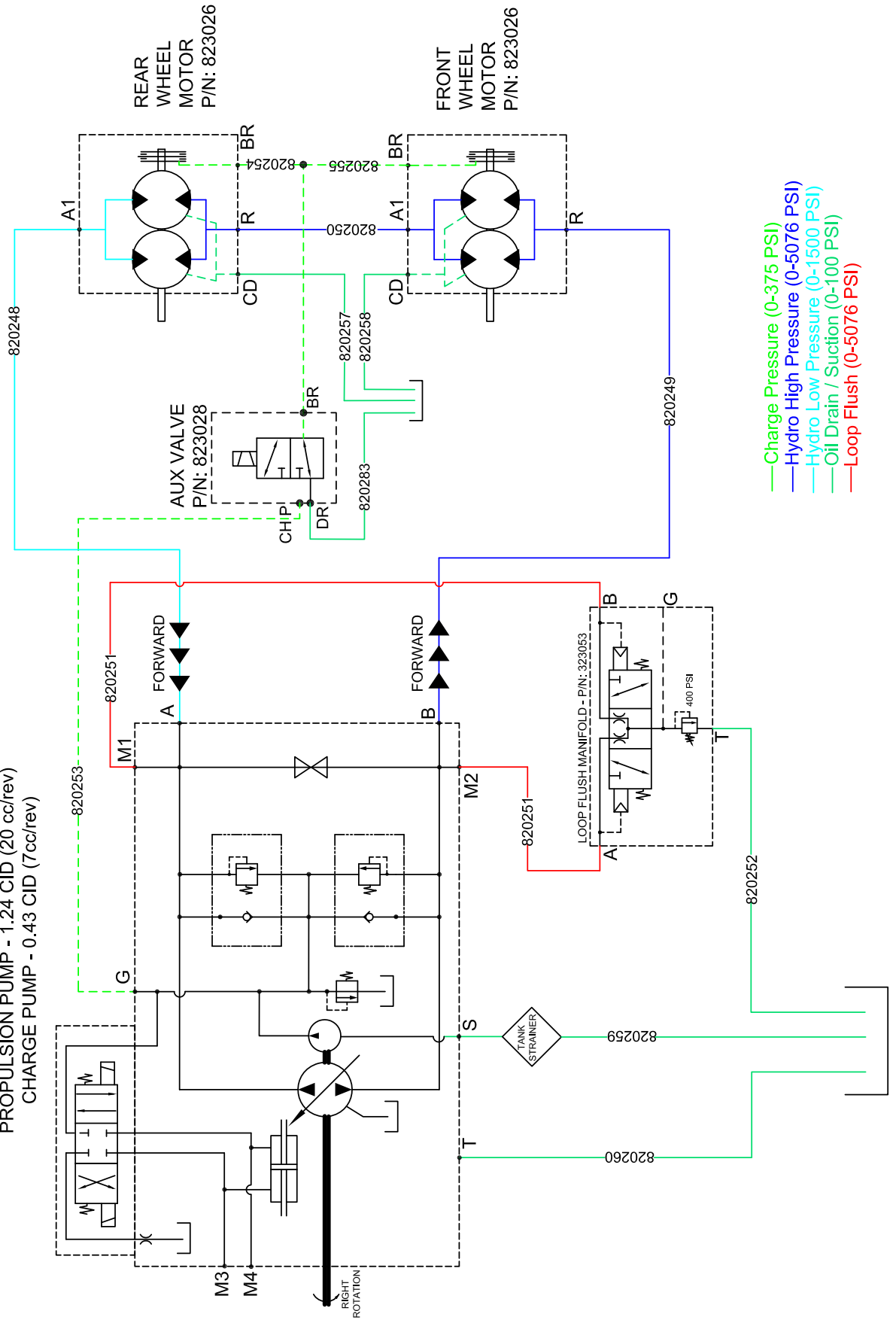
PROPULSION SYSTEM (GROUND DRIVE)



2/26/2019

PROPULSION CIRCUIT

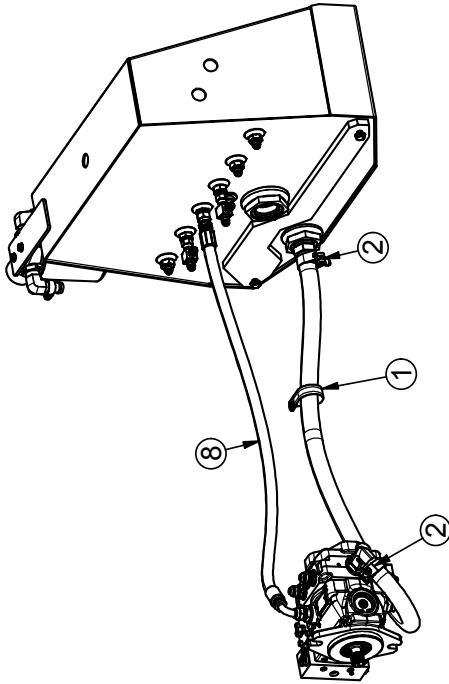
HYDROSTAT - PM10 POCLAIN - P/N: 823024
 PROPULSION PUMP - 1.24 CID (20 cc/rev)
 CHARGE PUMP - 0.43 CID (7cc/rev)



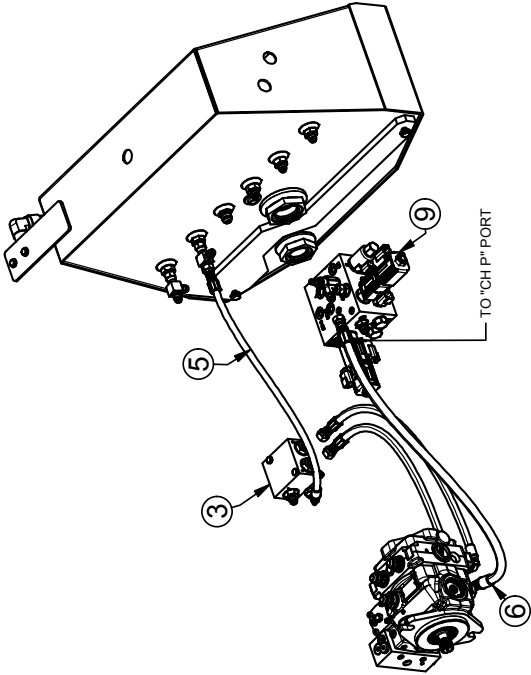
03/09/18

PROPULSION PLUMBING

PUMP SUCTION & DRAIN PLUMBING

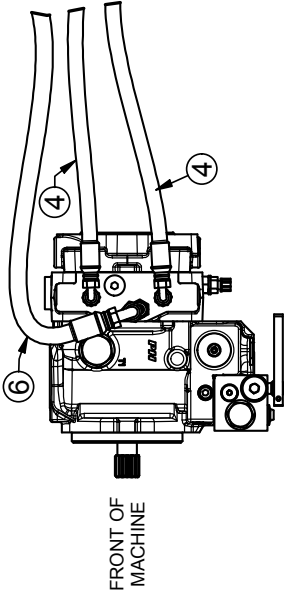


LOOP FLUSH & BRAKE RELEASE VALVE PLUMBING

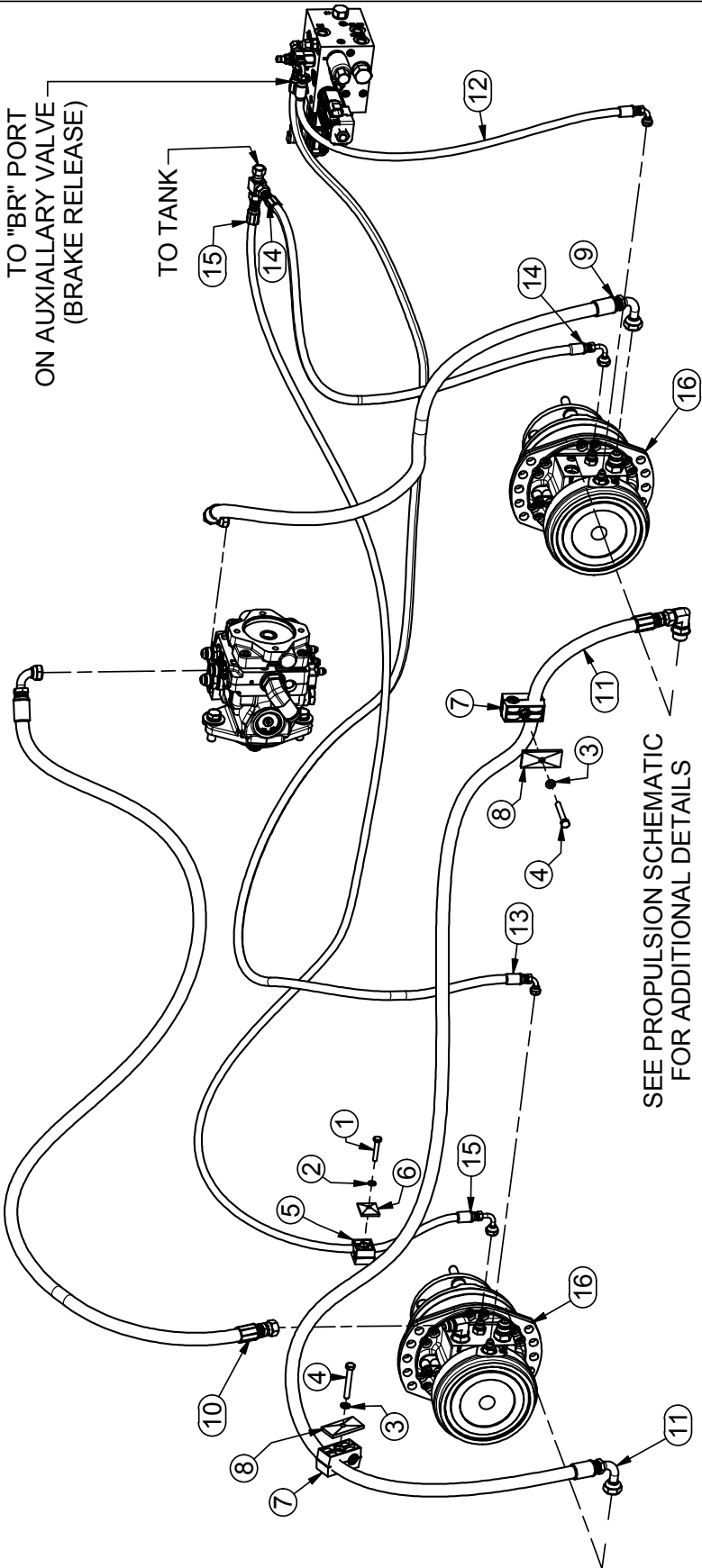


Parts List	
ITEM	PART # DESCRIPTION
1	100499 CLAMP, ADEL 1.75ID X .406HOLE
2	112101 CLAMP, 1.50", T-BOLT
3	323053 VALVE, LOOP FLUSH
4	820251 HOSE ASSY, LOOP FLUSH PRESS
5	820252 HOSE ASSY, LOOP FLUSH TANK
6	820253 HOSE ASSY, CHARGE PRESS
7	820259 HOSE, PROPULSION SUCTION
8	820260 HOSE ASSY, PROP PUMP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

BOTTOM VIEW OF PUMP

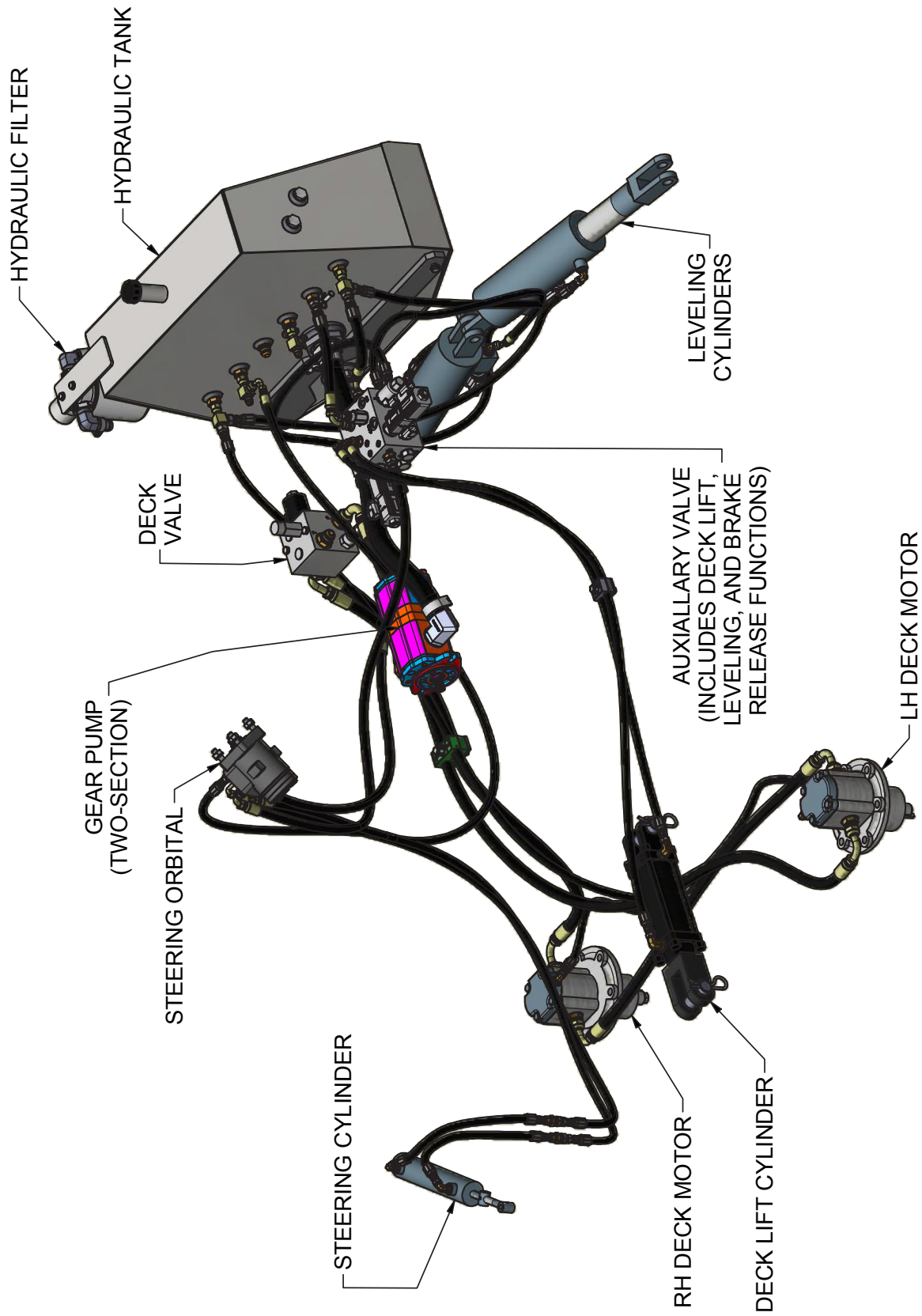


PROPULSION PLUMBING - WHEEL MOTORS



Parts List		Parts List	
ITEM	PART #	DESCRIPTION	DESCRIPTION
1	110474	BOLT, 1/4-20 X 1-1/2	HOSE ASSY, PROP PRESS A
2	110667	WASHER, 1/4" LOCK	HOSE ASSY, PROP PRESS B
3	110674	WASHER, 5/16" LOCK	HOSE ASSY, PROP PRESS SERIAL
4	111151	BOLT, 5/16-18 X 2-1/4	HOSE ASSY, REAR BRAKE
5	522104	DOUBLE HOSE CLAMP	HOSE ASSY, FRONT BRAKE
6	522105	DOUBLE COVERPLATE	HOSE ASSY, REAR MTR CD
7	820097	CLAMP BODY	HOSE ASSY, FRONT MTR CD
8	820098	COVER PLATE	MOTOR, WHEEL 30.5 CI

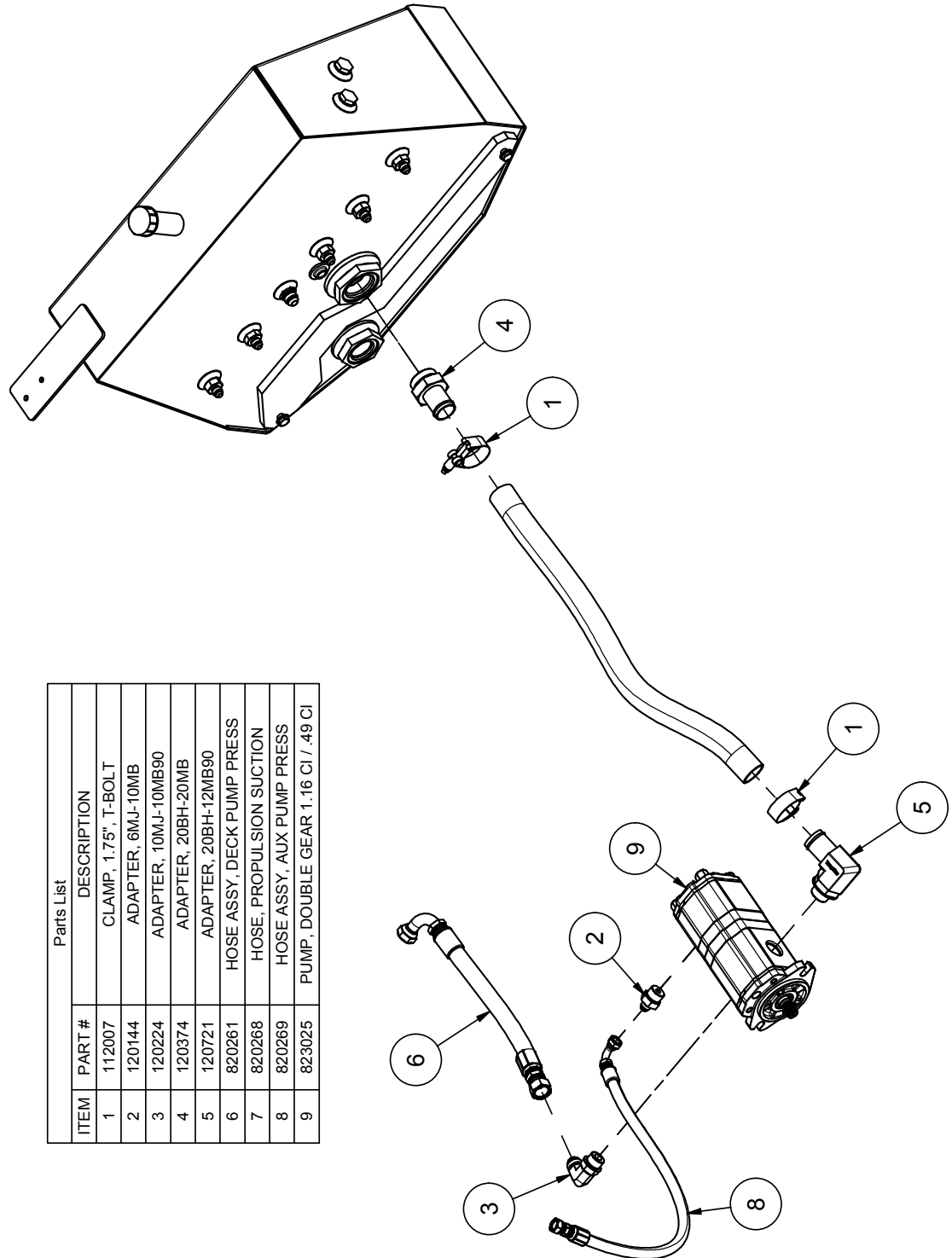
MACHINE HYDRAULIC SYSTEM



2/28/2019

GEAR PUMP ASSEMBLY & PLUMBING

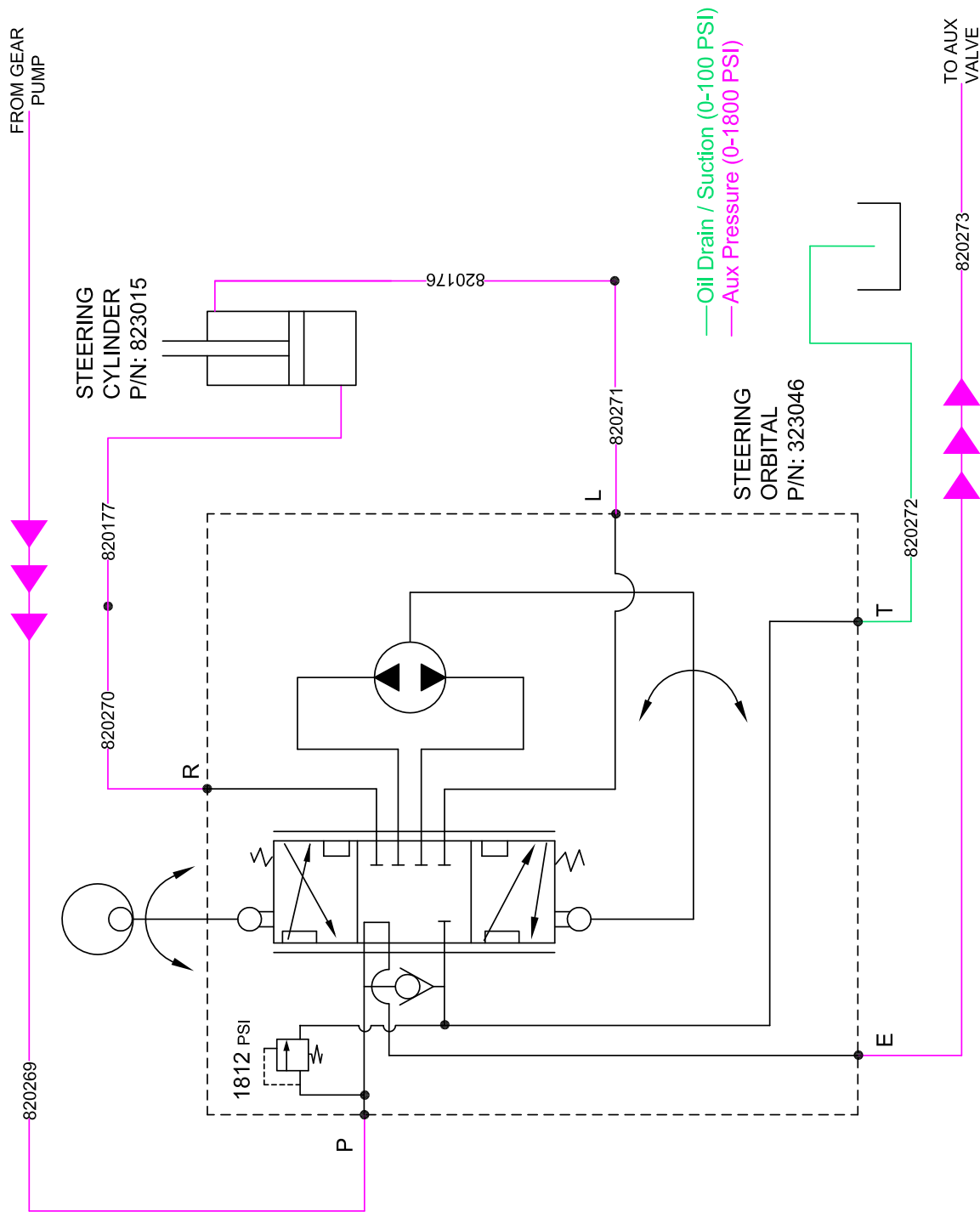
Parts List	
ITEM	PART # DESCRIPTION
1	112007 CLAMP, 1.75", T-BOLT
2	120144 ADAPTER, 6MJ-10MB
3	120224 ADAPTER, 10MJ-10MB90
4	120374 ADAPTER, 20BH-20MB
5	120721 ADAPTER, 20BH-12MB90
6	820261 HOSE ASSY, DECK PUMP PRESS
7	820268 HOSE, PROPULSION SUCTION
8	820269 HOSE ASSY, AUX PUMP PRESS
9	823025 PUMP,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



ASSEMBLY STATION #3: 875003

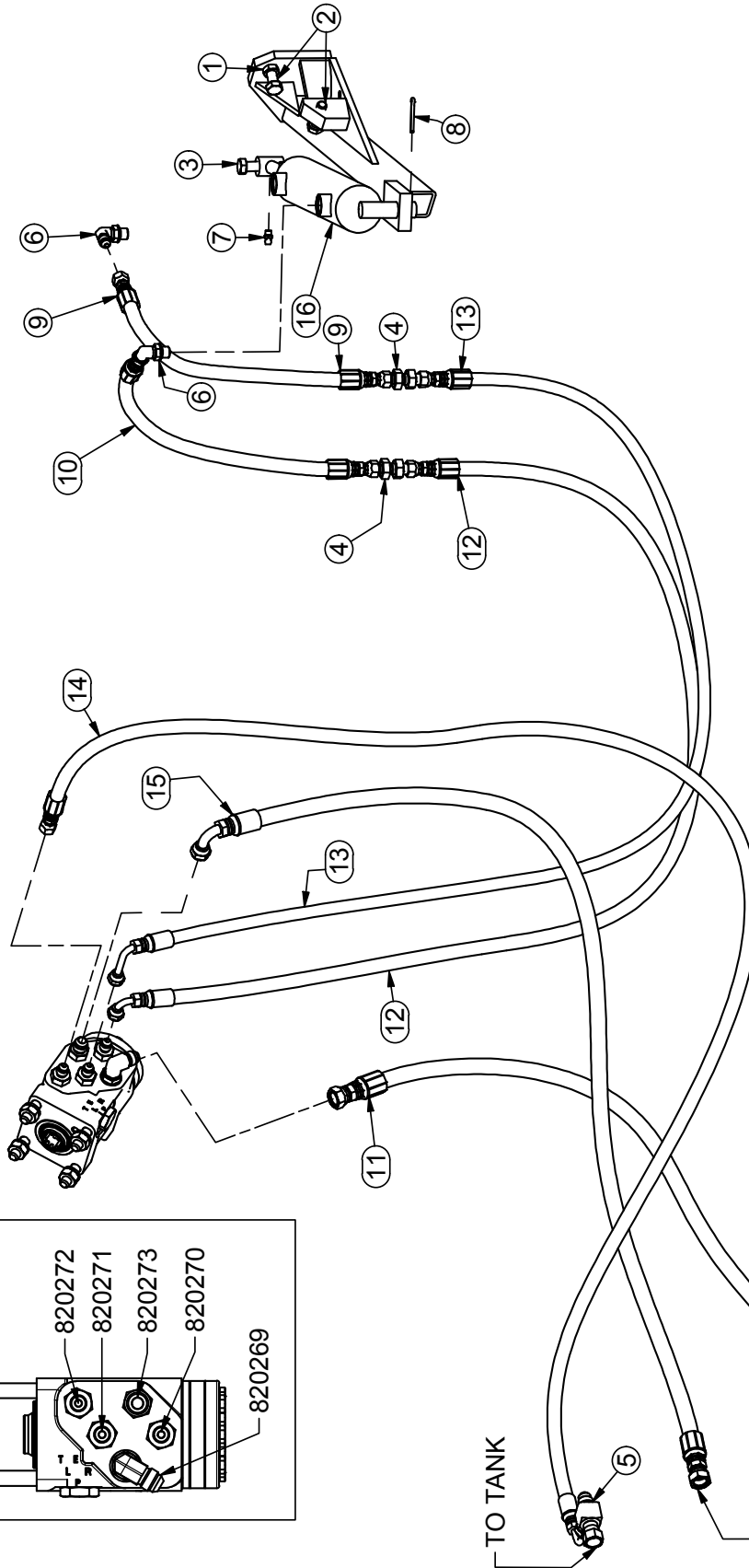
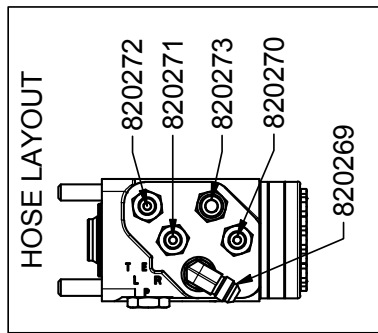
2/28/2019

STEERING CIRCUIT



03/09/18

STEERING PLUMBING

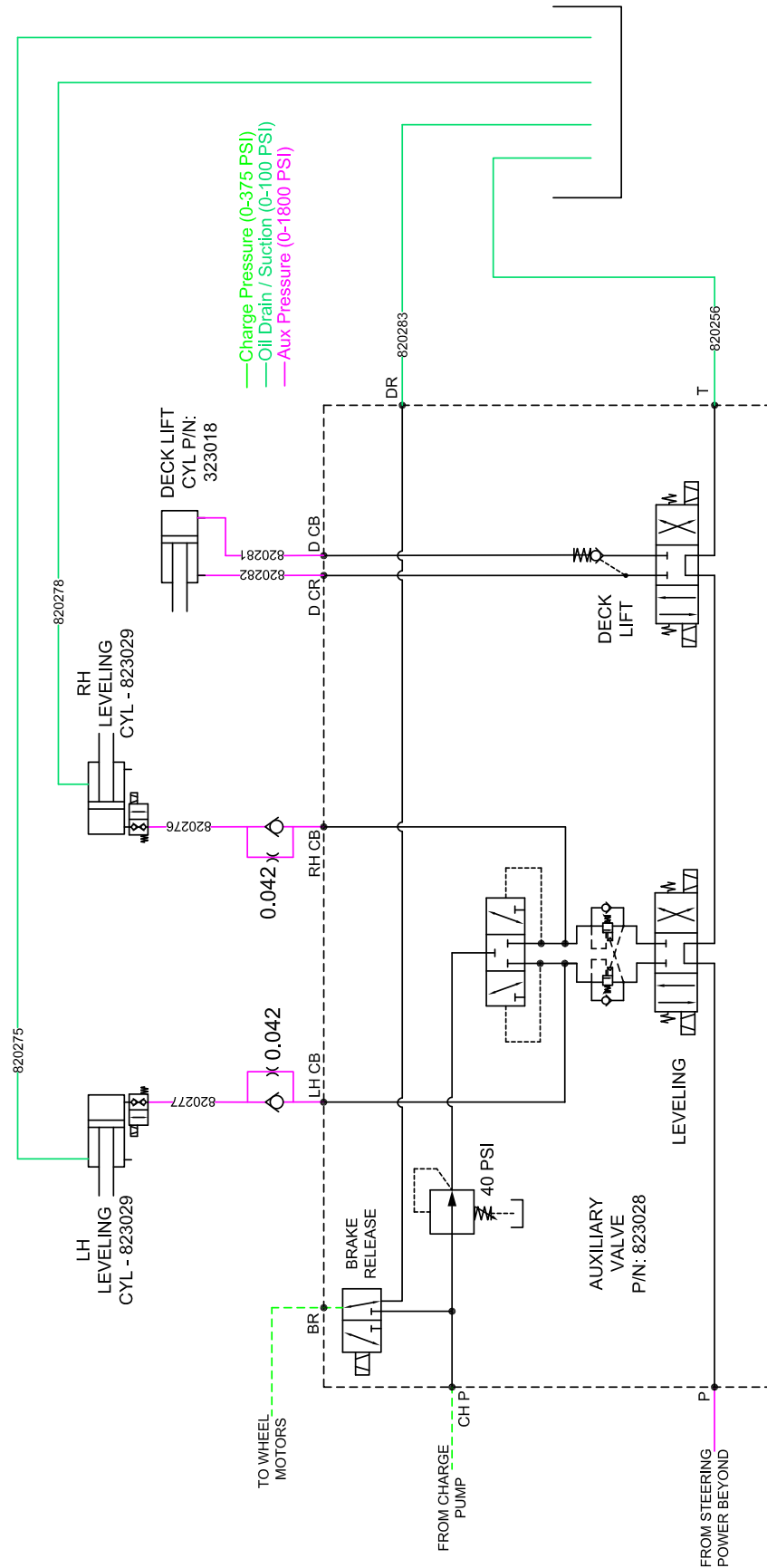


Parts List		Parts List	
ITEM	PART #	DESCRIPTION	DESCRIPTION
1	110107	NUT, 3/8-16 HEX JAM GR 2	HOSE, ROD END TO LT BULKHEAD
2	110425	BOLT, 3/8-16 X 1.25	HOSE, BARREL END TO RT BULKHEAD
3	110436	BOLT, 3/8-16 X 2.5	HOSE ASSY, AUX PUMP PRESS
4	120126	ADAPTER, BULKHEAD, 4MJ-4MJ	HOSE ASSY, STEERING PRESS R
5	120216	ADAPTER, 6MJ-6F JX-6MJ	HOSE ASSY, STEERING PRESS L
6	120235	ADAPTER, 4MJ-4MB90	HOSE ASSY, STEERING RETURN
7	510174	GREASE ZERK, 1/4-28 ST	HOSE ASSY, STEERING POWER BEYOND
8	510176	COTTER PIN, 1/8 X 1	STEERING CYLINDER

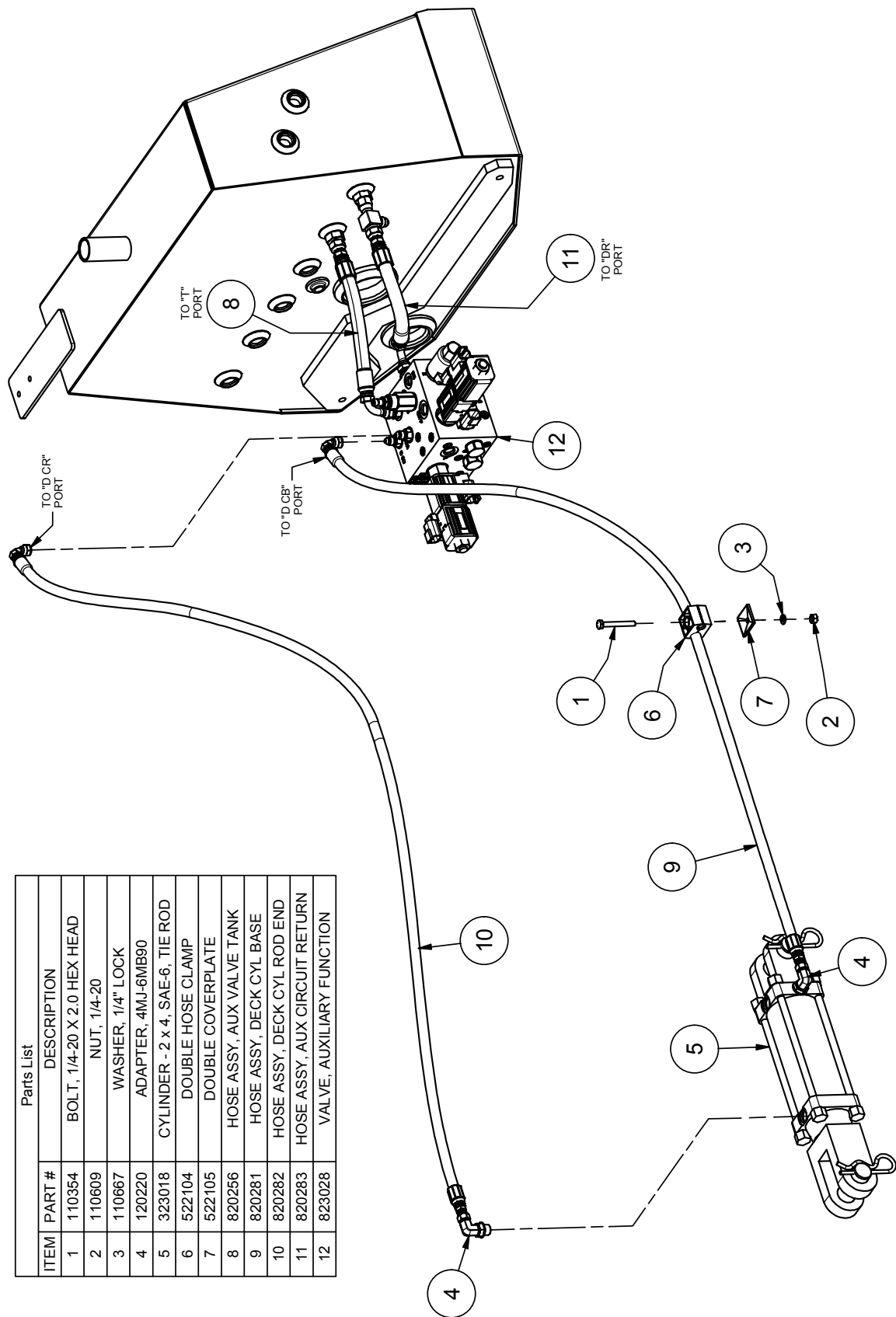
ASSEMBLY STATION #3: 875003

4/29/2019

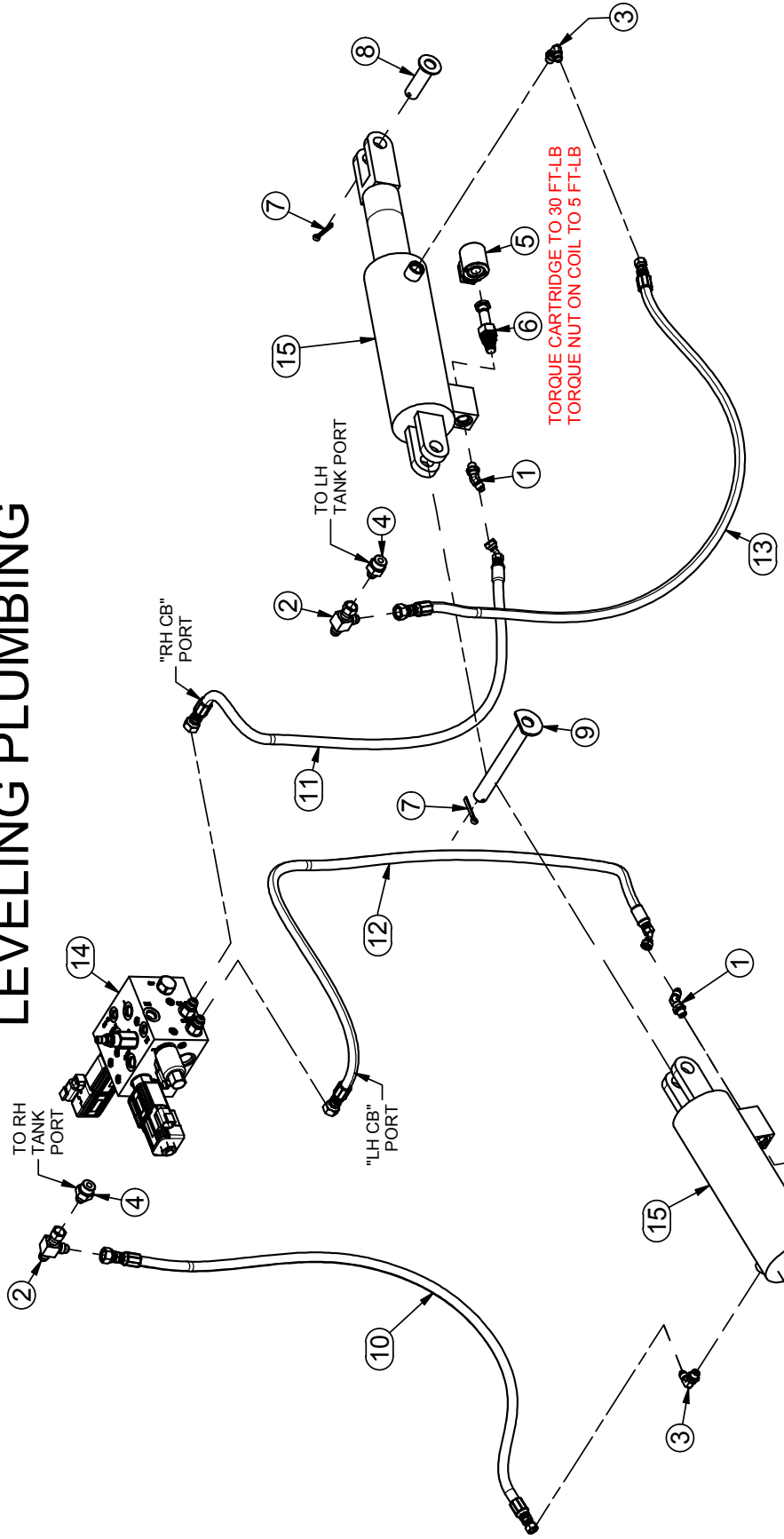
AUXILIARY FUNCTIONS CIRCUIT



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



LEVELING PLUMBING

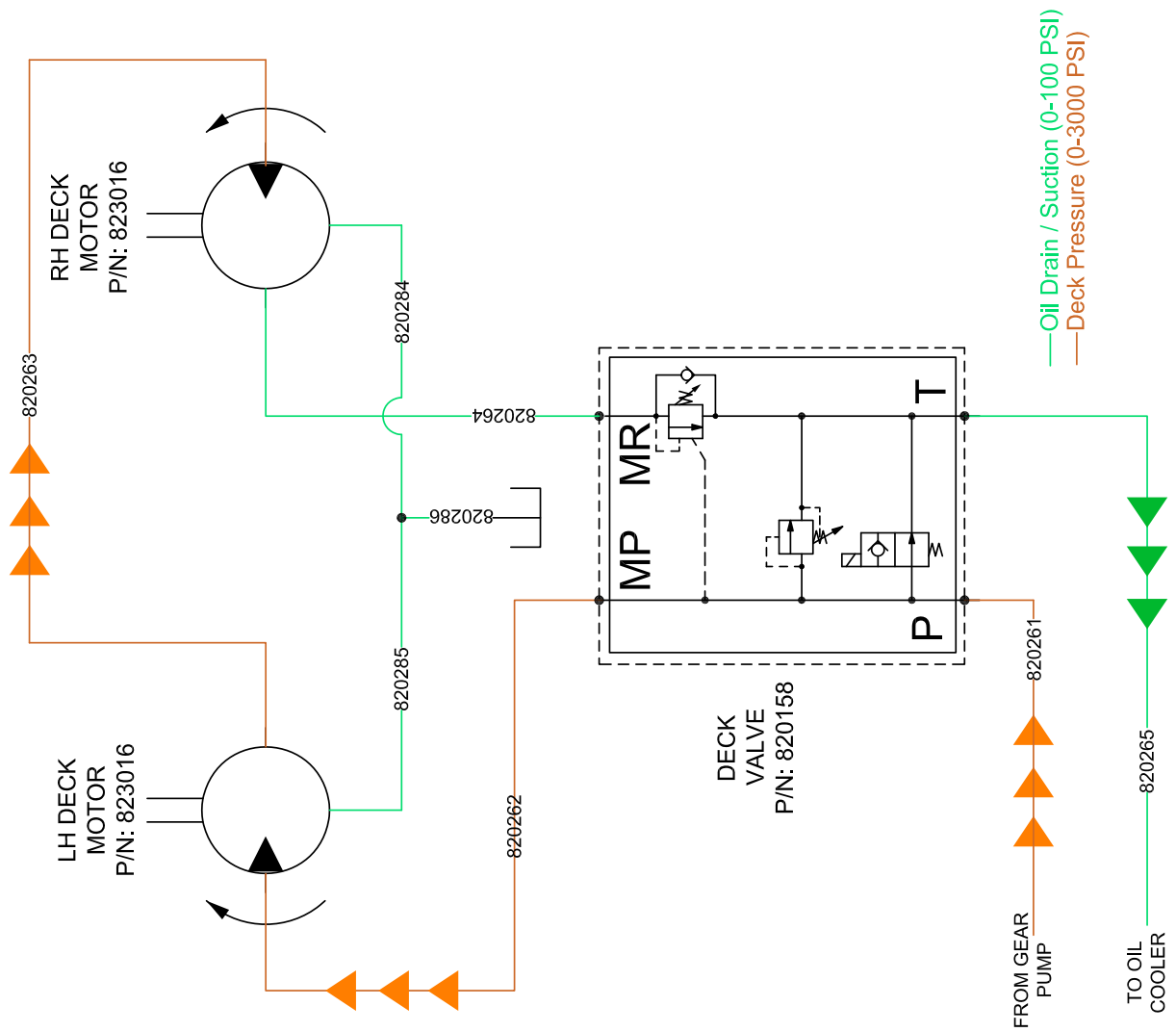


Parts List				Parts List			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	2	120027	ADAPTER, 4MB-4MJ 45	9	1	810091	PIN, LEVELING CYLINDER BASE
2	4	120216	ADAPTER, 6MJ-6FJX-6MJ	10	1	820275	HOSE ASSY, LH CYL ROD END
3	6	120235	ADAPTER, 4MJ-4MB90	11	1	820276	HOSE ASSY, RH CYL BASE
4	8	120239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

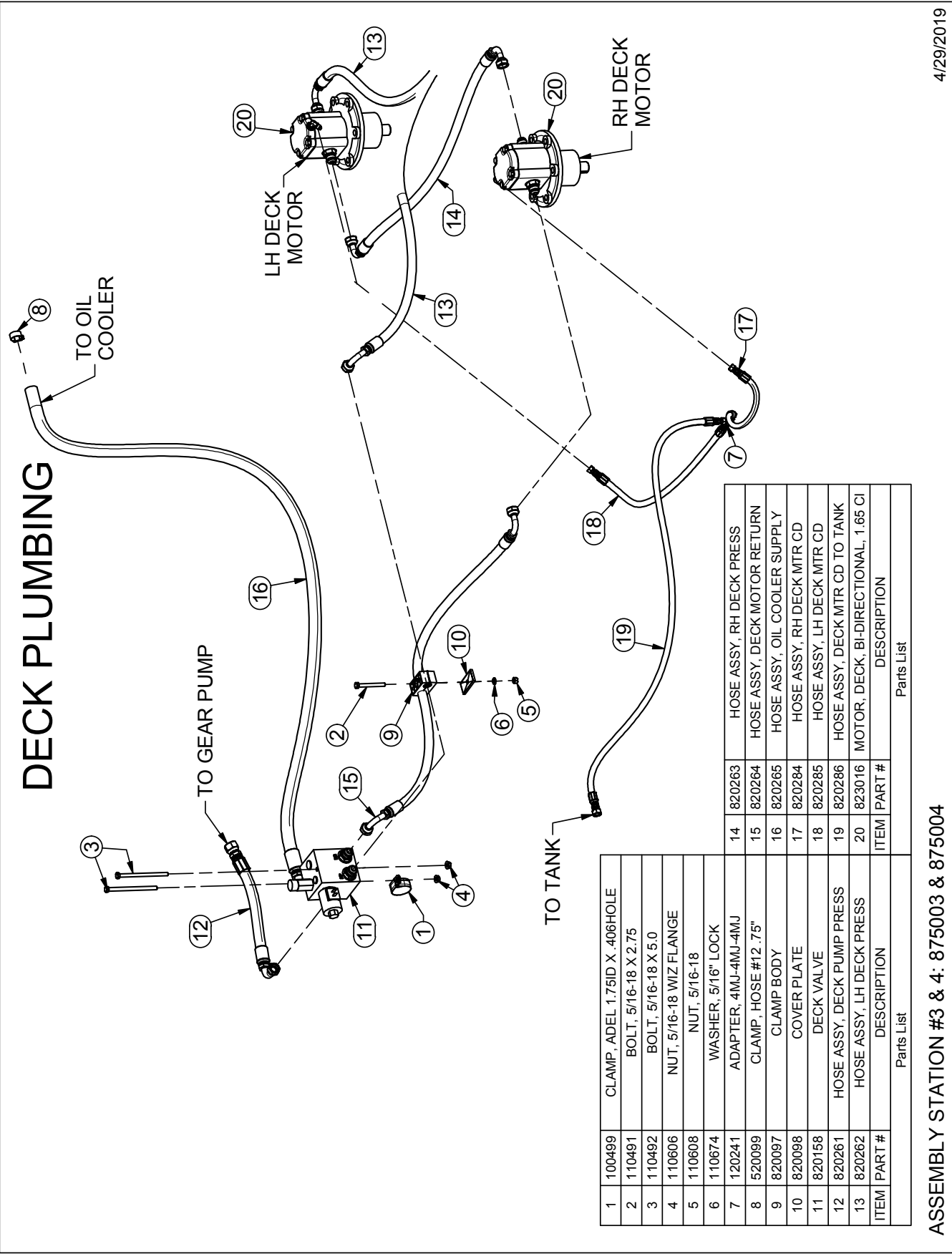
ASSEMBLY STATION #3: 875003

3/4/2019

DECK DRIVE CIRCUIT

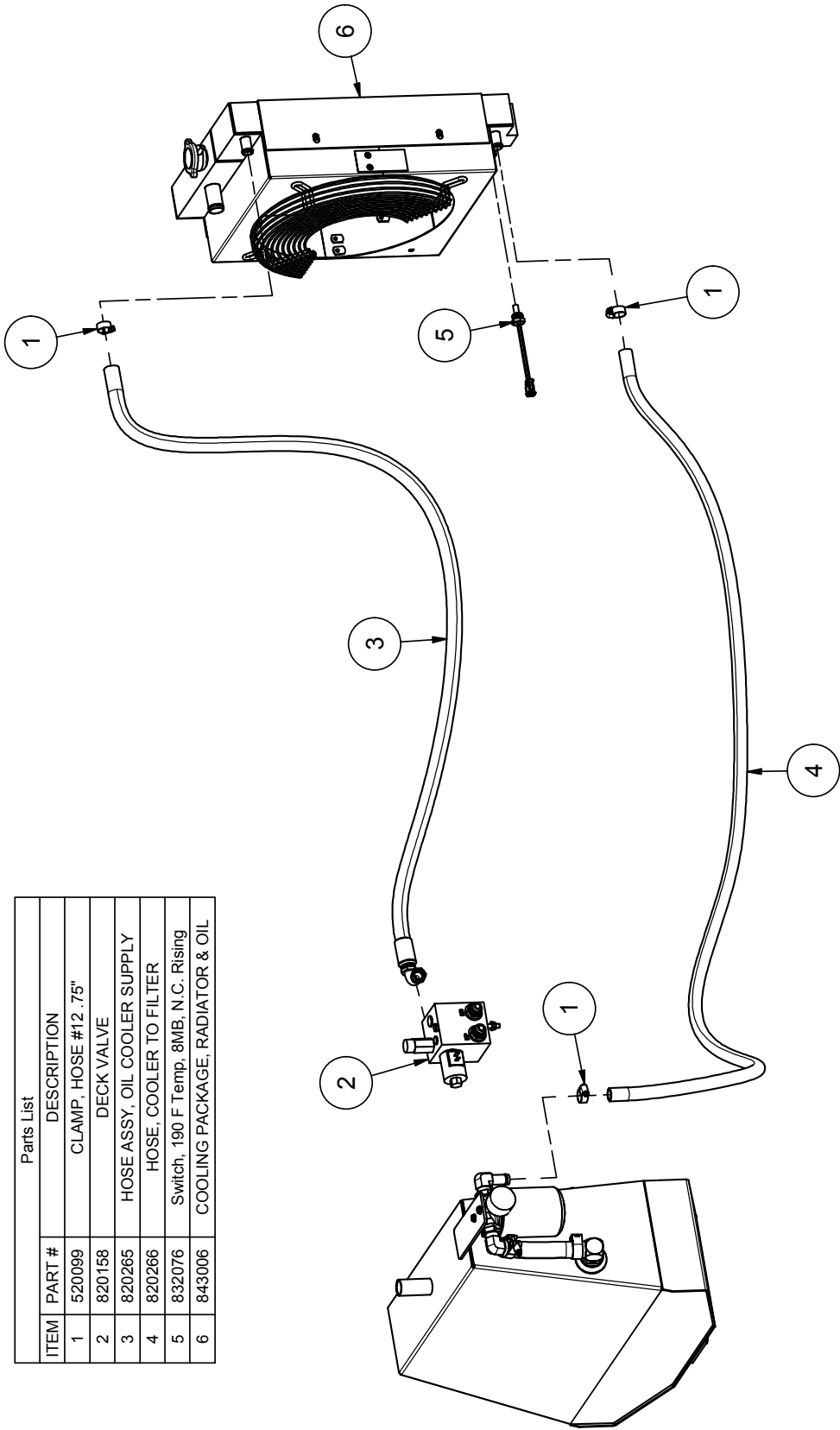


03/09/18

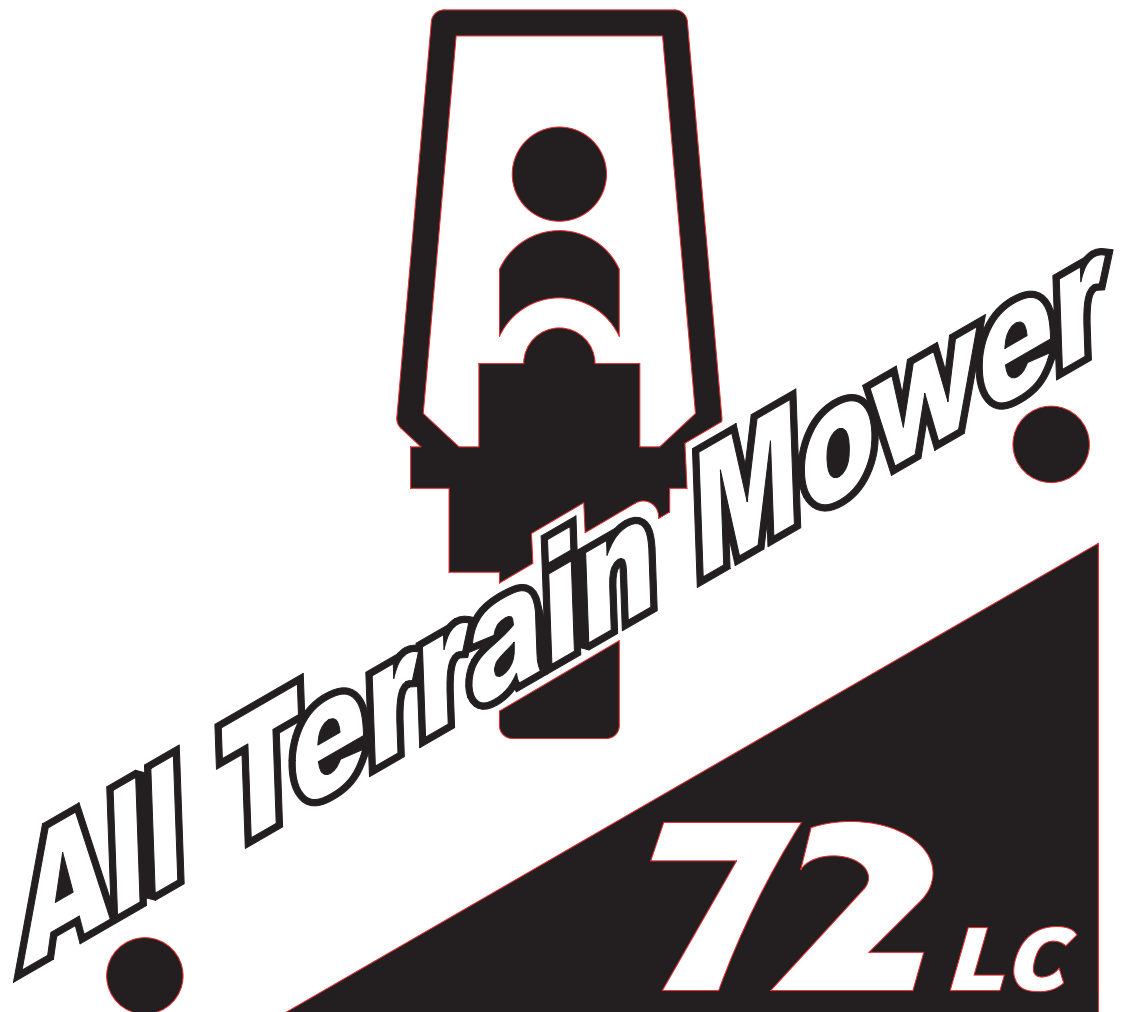


OIL COOLER PLUMBING

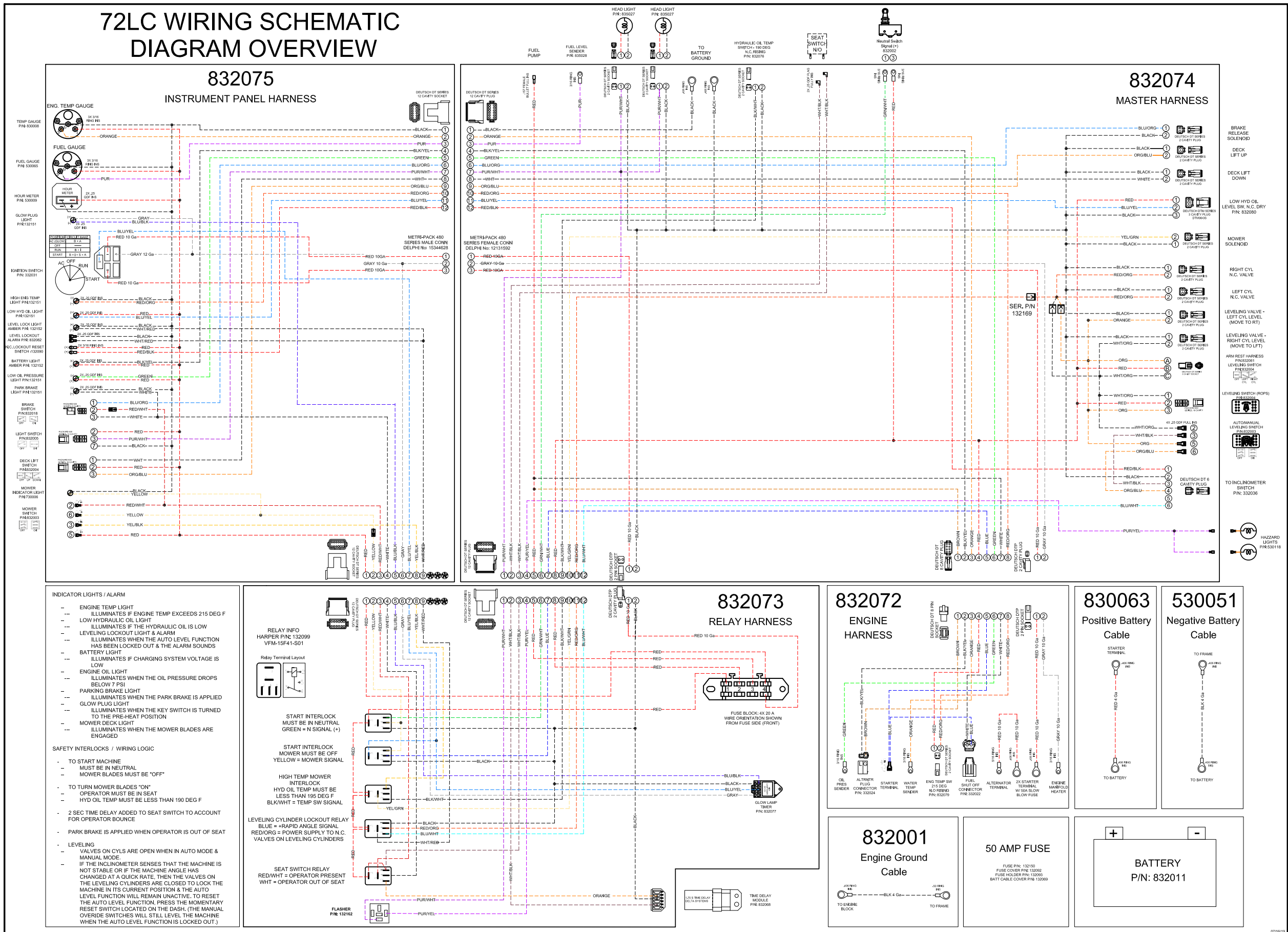
Parts List	
ITEM	PART # DESCRIPTION
1	520099 CLAMP, HOSE #12 .75"
2	820158 DECK VALVE
3	820265 HOSE ASSY, OIL COOLER SUPPLY
4	820266 HOSE, COOLER TO FILTER
5	832076 Switch, 190 F Temp. 8MB, N.C. Rising
6	843006 COOLING PACKAGE, RADIATOR & OIL



Electrical System

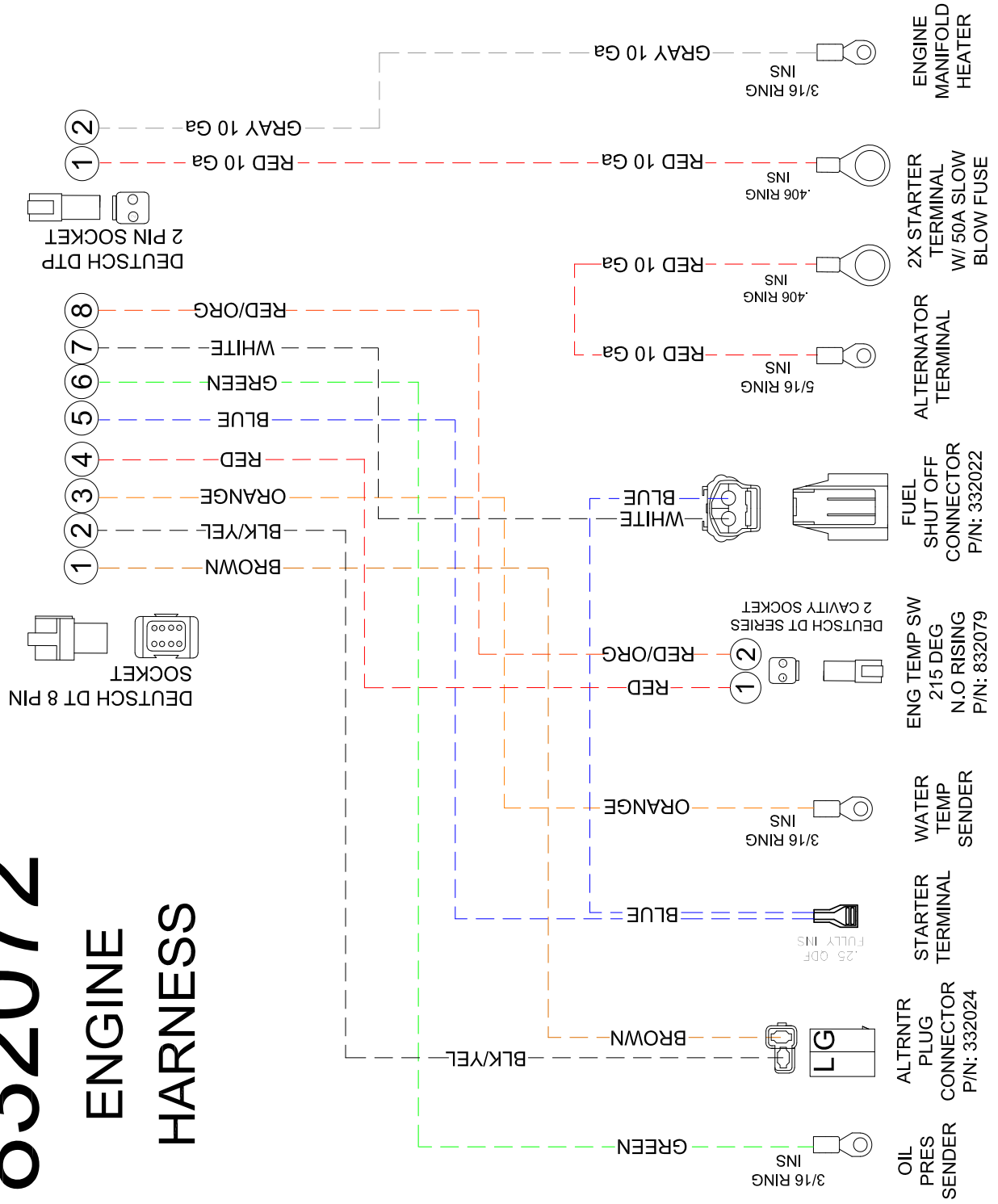


72LC WIRING SCHEMATIC DIAGRAM OVERVIEW



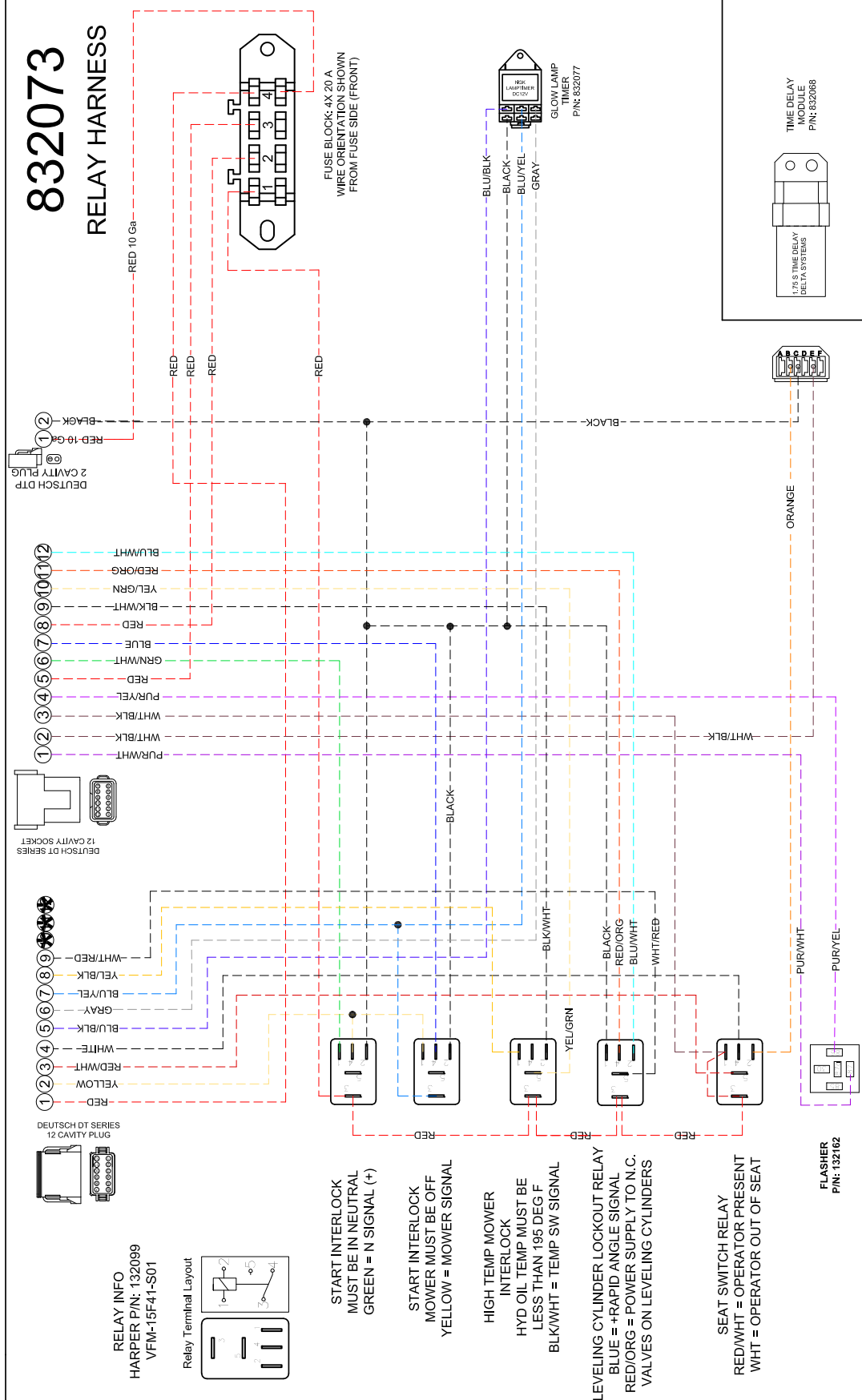
832072

ENGINE HARNESS



832073

RELAY HARNESS

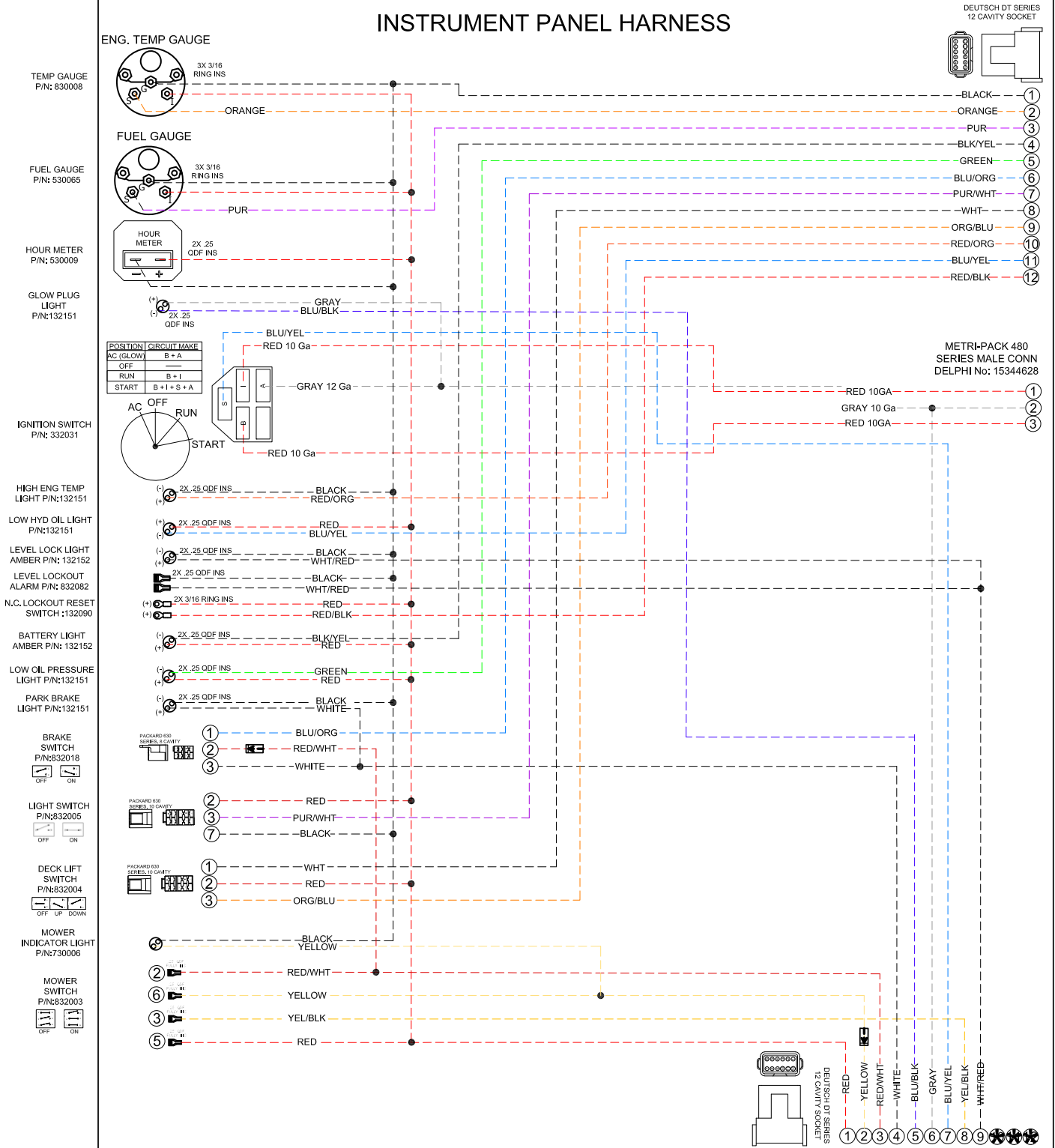


MASTER HARNESS



832075

INSTRUMENT PANEL HARNESS



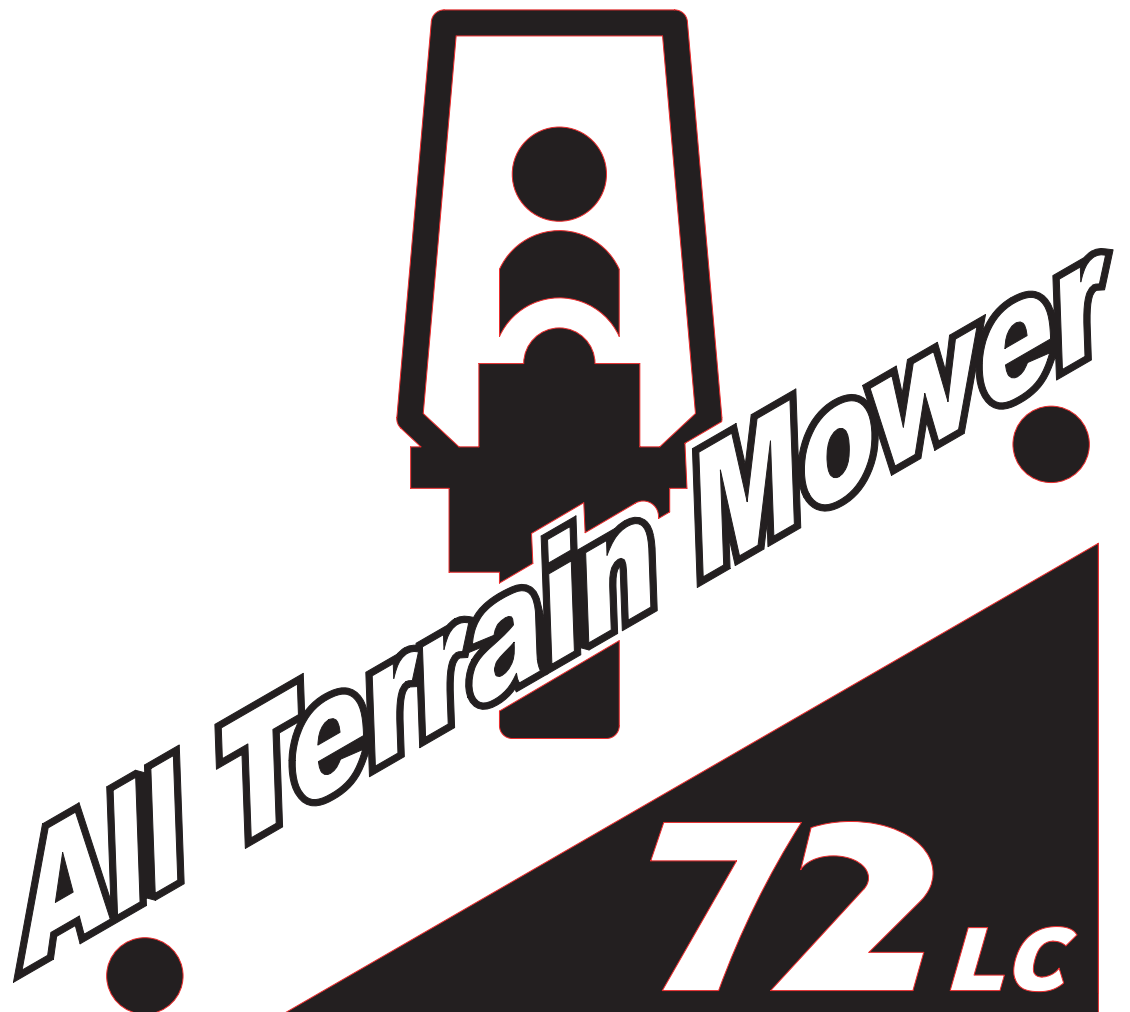
INDICATOR LIGHTS / ALARM

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

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

