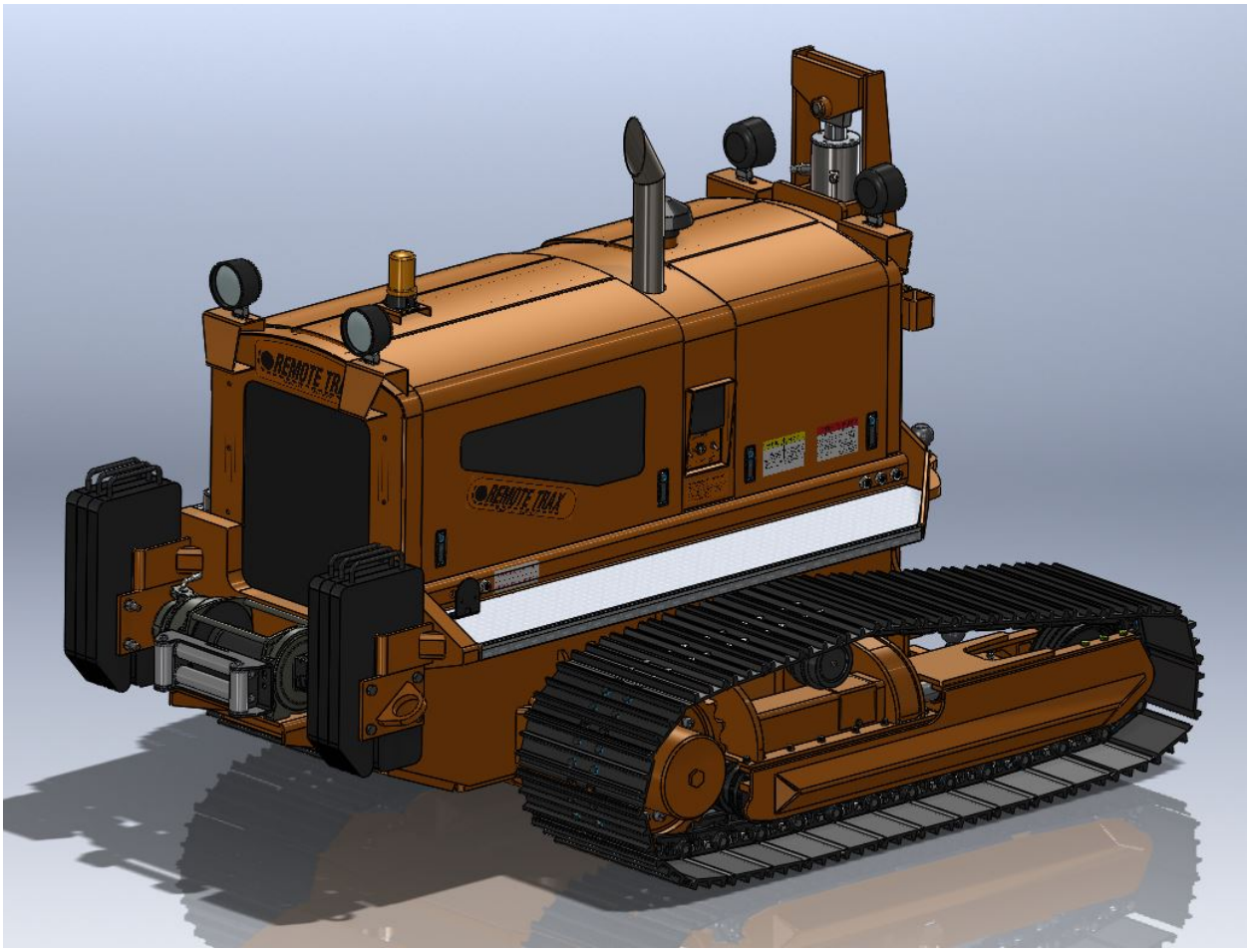
OWNER'S MANUAL



REMOTE TRAX
RT-75

Table of Contents

Limited Warranty and Limitations of Liability

Warranty

Layton Manufacturing Company warrants its products to its dealer, the dealer is to extend the same warranty to its customers as follows:
All products sold hereunder are warranted by Layton Manufacturing Company against defects in material or workmanship for twelve (12) months from the delivery date thereof to the customer. The liability of Layton Manufacturing Company being expressly limited to repairing or replacing (at Layton Manufacturing Company's Option) all defective machine parts accessories, or subassemblies, as shall be returned to Layton Manufacturing Company of Salem, Oregon, or other such point designated by Layton Manufacturing Company, freight prepaid, within a reasonable time. No other warranty or guarantee, express or implied, is authorized or shall apply to the same.

Liability

1. This warranty is expressly limited to parts replacement and repair, and is not transferable. Any expressed warranty not herein provided, and any remedy for breach of contract is excluded and disclaimed. The implied warranties of merchantability and of fitness for any particular purpose are limited to one year from delivery to the original user, or 12 months from factory invoice, whichever occurs first.

2. Any component or part manufactured by others will carry that manufacturer's warranty, and in no case will Layton Manufacturing Company be liable, either expressed or implied, for warranties in excess of those made by the original manufacturer.

3. Under no circumstances will Layton Manufacturing Company be liable to the purchaser, or any other person, for any incidental or consequential damages. The user assumes liability for all personal injury or property damage resulting from the handling, possession, or use of the product.

4. Repairs or modifications done by others, or parts supplied by others outside the company's factory are not covered by this warranty.

5. No agent, employee, or representative of Layton Manufacturing Company has any authority to make any affirmation, representation, or warranty concerning Layton Manufacturing Company, except as specifically stated above.

Warranty Procedure

1. Prior authorization by Layton Manufacturing Company must be obtained for all warranty work.

2. Contact Layton Manufacturing Company giving complete details of your request, the unit involved, including serial number, date of purchase, and the nature or reason for the claim.

3. A Warranty Request Number will be assigned, and is required, whenever any warranty is to be paid either in the form of cash, credit, replacement parts, or service work.

4. The assignment of a Warranty Request Number does not guarantee warranty will be allowed. The number is to identify the request and the part to be returned.

5. When parts are shipped on Warranty Request, you may be required to return old parts for inspection or return to the

original manufacturer. In this case you will be invoiced for shipment of new components until the old unit is returned.

Introduction

Summarized in subsequent paragraphs is general safety information that supplements specific warnings and cautions appearing elsewhere in this manual. Since all electrical and hydro-mechanical equipment is dangerous whenever incorrectly operated, you must thoroughly understand this safety summary before attempting to operate or service this tractor. The following terms define the various precautions in this manual.

WARNING

A "WARNING" HIGHLIGHTS PROCEDURES OF PRACTICES THAT IF NOT STRICTLY FOLLOWED, COULD RESULT IN SERIOUS INJURY OR DEATH. WHENEVER YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE WHICH FOLLOWS TO PREVENT SERIOUS INJURY OR DEATH.

CAUTION

A "CAUTION" HIGHLIGHTS PROCEDURES OR PRACTICES THAT IF NOT FOLLOWED, COULD RESULT IN DAMAGE TO PROPERTY. WHEN YOU SEE TIDS SYMBOL, READ THE MESSAGE WHICH FOLLOWS TO PREVENT PROPERTY DAMAGE.

NOTE:

A "note" highlights procedures or practices which are essential, but are not of known hazardous nature. Carefully read notes in order to improve equipment reliability and/or personal performance.

NOTE:

All possible safety hazards cannot be foreseen so as to be included in this manual. Therefore, the operator must always be alert to possible hazards that could endanger personnel and/or damage to the equipment.

Safety Notices

Where possible, safety decals & placards are installed on the tractor and assembled components at the factory.

Safety Precautions

The Remote Trax produced by Layton Manufacturing Company may be used in varied situations. With *safety* as a primary concern, these precautions are provided to help avoid mistakes, hazards, and potential accidents.

1. The Remote Trax should be maintained and used properly as the basis of a safe work environment.

2. Keep the operation-service-parts manual available at all times.

WARNING

DO NOT LET ANYONE OPERATE THIS EQUIPMENT WITHOUT PROPER INSTRUCTION

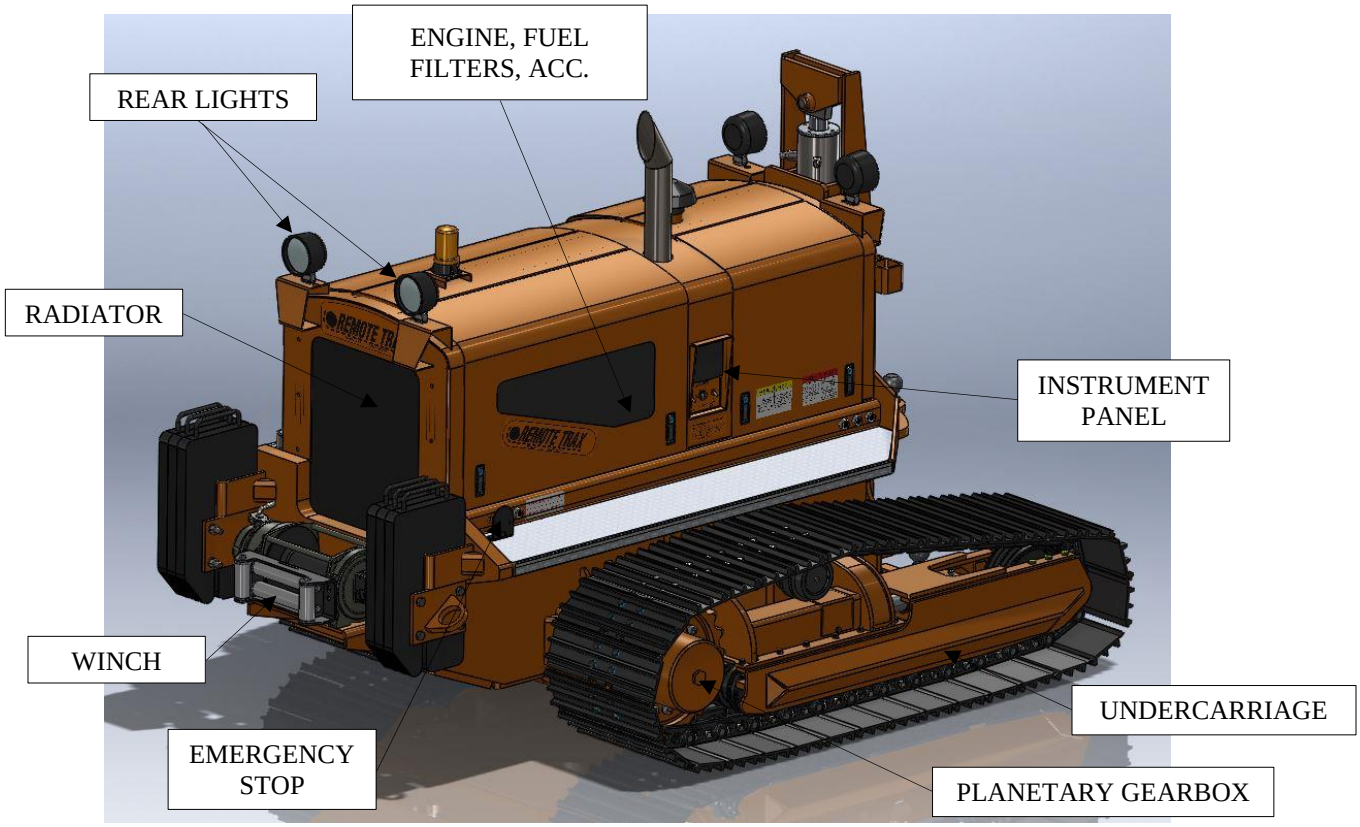
3. Any potential operator should be fully capable of accomplishing the task and activities to safely operate the Remote Trax.

4. Before operating this equipment, every operator must read and understand this manual and the safety signs, warnings and instructions contained therein. Should any difficulty such as unfamiliar language be encountered, the owner must obtain translation of these instructions prior to allowing the person to operate the Remote Trax.

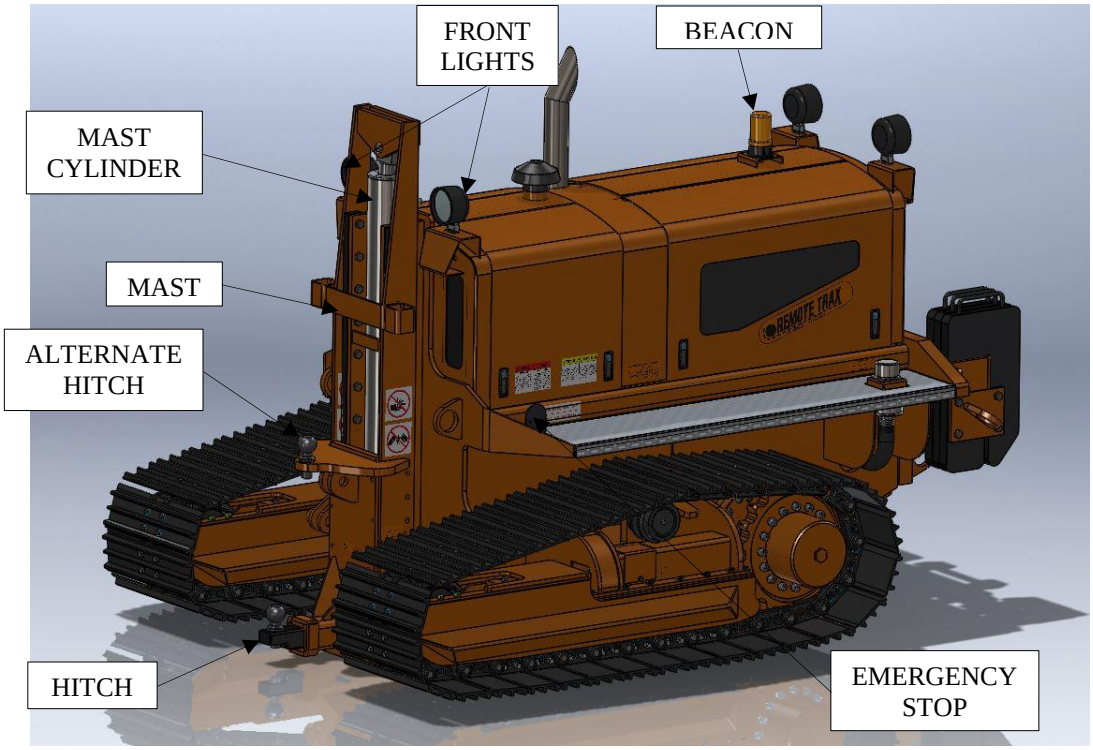
5. Anyone who installs, services, or repairs this equipment must be properly

instructed and warned prior to beginning work. Each individual must read and understand all safety signs, cautions, and warnings prior to maintenance or operation.

6. Any modifications to the Remote Trax and related components may impair the function and/or safety of the component or system.



View of Remote Trax from right hand side



View of Remote Trax from left hand side

1.1 Introduction

This manual was prepared for the Layton Remote Trax remote controlled tractor, and includes the following information:

Section 1: General Information describing the tractor and its specifications.
Section 2: Operation Instructions are given to promote safe and efficient use of the tractor.
Section 3: Service guidelines for preventative maintenance, and troubleshooting the tractor.
Section 4: Troubleshooting
Section 5: Parts information for tractor component repair or replacement.
NOTE: Carefully read the safety summary which precedes this section before attempting to operate or service this equipment.

1.2 Description

The Remote Trax is a fully remote controlled tractor with a four-cylinder 75 horsepower diesel engine. The independent track hydrostatic propulsion system has five sealed, lubricated track rollers per side with bolt on drive sprockets.
Current options include 17-5/8" single grosser pads, and a 66" dossier blade. Contact your dealer for information on other options or requirements.

NOTE: The description and specifications shown in this manual were in effect at the time of publication, and are subject to change without notice or obligation.

1.3 Specifications

Model.....RT-75
Overall Length …...…….8'9"
Overall Width .....5'3"
Overall Height .....6'10"
Ground Clearance ....7"
Track-Shoe Width ……..... 18"
Gross Weight .....7500 lbs.
Winch Capacity .....12,000 lbs.
Fuel.....14.5 gal. Diesel
Power.....75hp-4cyl.
Engine Oil.....10qt. 15W40
Engine Coolant-Ethylene glycol & water
Hydraulic Reservoir - 15 gal. IS046*
Operating Pressure.....1,800 PSI

*NOTE: Hydraulic fluid that conforms to IS032 specification is recommended for arctic (extreme cold weather) operation.

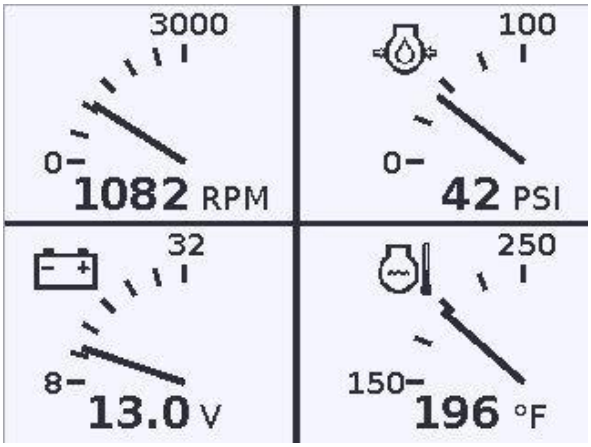
1.4 Receiving

See figure 1. Your Layton Remote Trax remote controlled tractor was completely inspected, tested, lubricated and filled with hydraulic fluid before leaving the factory. Carefully inspect for damage; you must note any damage on the carrier's bill of lading, and file a claim immediately with the freight company. If you receive damaged goods, contact your dealer for repair or replacement.

Display Panel – Power View 350

From any 4- or 6-up display screen, pressing any of these Soft Keys will display the following menu on the screen:

Once the engine has started, the 4-up parameter view displays with Engine RPM, Oil Pressure, Voltage, and Coolant Temperature. To reach the various gauge displays, press any button to enable the menu to appear, and then press the Right Arrow repeatedly.
There are four (4) gauge displays on the PV350. They can be displayed when the right arrow is pressed repeatedly from the menu display. The displays are described in detail below:



Engine 4-up - Default display screen

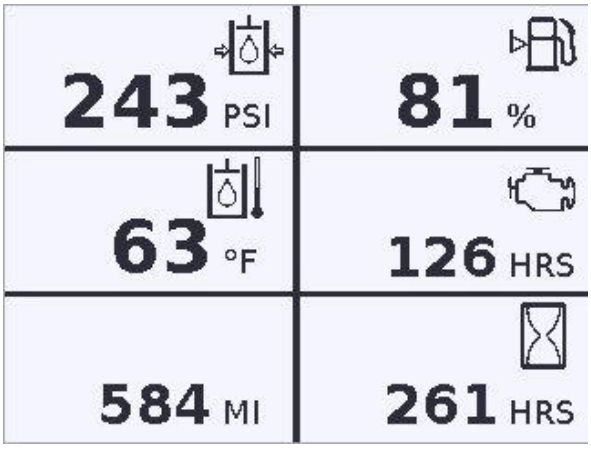
*Note: Values shown in screen shots are for display purposes only and may not represent values registered during normal operation.

1. Tachometer. This gauge displays the engine RPM.

2. Voltmeter. This gauge indicates the condition of the electrical system. The voltage of the battery must not drop below 9.5V during engine start or the engine will stop cranking.

3. Oil Pressure Gauge. Indicates engine oil pressure. Normal engine oil pressure 55-65 PSI.

4. Water Temperature Gauge. Indicates engine coolant temperature. Normal engine coolant temperature should be 185°F to 195°F and should never exceed 210°F (100°C).



6-Up #2 Screen

5. Hydraulic Fluid Temperature Gauge. This gauge indicates the temperature, in *Degrees Fahrenheit,* of hydraulic fluid in the reservoir.

CAUTION

HYDRAULIC FLUID TEMPERATURE UNDER ANY CONDITIONS SHOULD NOT EXCEED 180° FAHRENHEIT.

6. Fuel Level Gauge. This gauge indicates relative fuel quantity in percentage of a Full tank.

7. Engine HRS. This timer records the time in hours the engine is operating. Use this gauge to track cycles of periodic maintenance.

8. Chronometer. This timer records total system operation time in hours. This timer will continue to accumulate whenever the key switch has been placed in the on position.

9. Key Switch. Turn the key clockwise to energize electrical system, turn the key counter-clockwise to shut down the tractor.

10. Front & Rear Light Toggle Switch. The front and rear lights are separated with individual toggle switches.

Operation 2.1 – Remote Control Diagram

1. **Auxiliary Control**. This three position toggle (spring loaded to the neutral) controls a hydraulic directional valve for the operation of the optional blade, and other accessory implements.

2. **Throttle Switch**. This two position latching switch selects between engine idle (low RPM) and (high RPM) tractor operation mode.

NOTE: Throttle selector switch must be in the idle position to start the tractor.

3. **Transmitter Status Light**. This green lamp flashes on and off to indicate that the transmitter power switch is in the on position.

4. **Right Joystick**. This Omni-directional, spring loaded return to center joystick controls the direction and speed of the tractor.

5. **Left Joystick**. The left joystick controls the mast and winch functions.

6. **Emergency Shut-Off**. This push-pull button kills the engine when pushed. Pull this button to the out position before restarting the tractor.

7. **Ignition Switch**. This momentary, two positions, spring return to center toggle with starts the tractor.

8. Travel Speed Selector. This two position switch limits maximum travel speed when in the slow (snail) position. It is generally recommended that the tractor be in low range (slow) when positioning loads. High range (fast) should be reserved for traversing larger distances over mild terrain.

9. **Switch On/Off**. This toggle switch turns transmitter power on.

10. **Tether Port**. This port is used for operating the transmitter without batteries. Also allows transmitter to "learn" receiver address.

Pre-Start

1. Check the hydraulic oil level and ensure that it is at the high mark on the dipstick.
2. Visually inspect the track chain for loose grousers or worn chain. Check for proper chain tension.
3. Check Emergency shut-off switches, make sure the contacts are intact.
4. Check engine oil level.
5. Check engine coolant level
6. Visually inspect the tractor for fluid leakage. Oil in the belly pan may indicate loose or worn hydraulic lines. Greenish fluid indicates leakage of engine coolant.

WARNING

INJECTION HAZARD
HYRAULIC OIL LEAKS UNDER HIGH PRESSURE MAY CAUSE SERIOUS INJURY.

7. Always operate Remote Trax with a fully charged transmitter battery and at least one half of a tank of fuel.
8. Make certain that the warning beacon and beeper are intact and functioning.

Start Up

WARNING

CLEAR THE IMMEDIATE AREA AROUND THE TRACTOR OF PERSONS OR OBSTRUCTIONS.

1. Turn the key switch to the “on” position at the tractor.

NOTE: Before starting the tractor, make sure emergency stop button on the transmitter is pulled out and the throttle selector switch is in the idle position.

2. Turn the transmitter power "On" (Toggle switch in “on” position) .
3. For safety purposes, the start switch must be toggled in the following sequence for the engine to start:

RUN – RUN – START

4. Release the toggle switch once the engine starter begins to crank. The engine ECU will control the starter once it has been placed in the start mode.
5. Allow the engine to warm up at idle for 10-15 minutes before putting the unit to work. (Warm up times are relative to climate and ambient conditions)

NOTE: Tractor joystick controls may be oversensitive and handling characteristics may be "jerky" due to cold hydraulic oil if the unit is not allowed sufficient time to warm up.

Post-Start

1. Once the unit has warmed up, check once again for leaks and listen for any unusual noises (loose fasteners etc.).
2. Check all instruments-when all indications are normal, the unit is ready for operation. Position the mast for transport, approximately 12" above the ground, before moving the tractor.
3. Familiarize yourself with the controls before putting the tractor to work in field conditions.

Shut-Down

Always shut down the Remote Trax by pressing the red push-button located in the center of the transmitter control panel. Then turn the key witch off at the tractors instrument panel.

NOTE: Before restarting the tractor you must reset the stop button on the transmitter control panel by pulling it

back out to the start-up position. And remember, the throttle switch must also be in the idle position before restarting.

In the event of an emergency, the tractor can be shut-down by depressing either of the two emergency-stop switches, located on each tractor fender. (One at the rear of the right fender, the other at the front of the left fender)

NOTE: The emergency-stop switches are for EMERGENCY SHUT DOWN ONLY.
When shutting the tractor down normally, follow the shutdown procedure outlined above.

Transporting the Tractor

Because loading and unloading the tractor onto and off of the toters and trailers often requires that the operator negotiate steep inclines and maneuver through tight spaces, it is doubly important that the hydraulic system be thoroughly warmed up and operating with maximum maneuverability .

CAUTION

ATTEMPTING TO MANEUVER TIGHT SPACES OR STEEP RAMPS BEFORE ALLOWING THE TRACTOR TO WARM UP CAN CAUSE THE TRACTOR TO COLLIDE WITH NEARBY OBSTRUCTIONS AND MAY ALSO CAUSE THE TRACTOR TO OVER SHOOT OR RUN OFF THE EDGE OF RAMPS.

WARNING

ALWAYS BACK THE TRACTOR UP AN INCLINE- WINCH END FIRST TO AVOID OVERTURNING.

Because the Remote Trax is designed to achieve stability under heavy load, the tractor tends to be heavy in the rear (winch) end when not under load. Therefore, the tractor must be backed up loading ramps and must be run forward, down loading ramps.

Introduction 3.1

Periodic inspection and service will assure long life and efficient performance of the Remote Trax. This section contains preventative maintenance, troubleshooting and preventative maintenance procedures.

Preventative Maintenance
In order to avoid breakdowns and reduce wear, equipment must be serviced regularly.
Whenever the equipment is running continuously or operated in extreme conditions, the prescribed service intervals should be adjusted to provide more frequent inspection and lubrication.

Lubrication Specifications 3.2

1. **Gear Oil**
Use EP85/90 in the planetary gear boxes.

2. **Hydraulic Oil**
Use oil that conforms to IS046 in the hydraulic oil reservoir and in the transmission.

3. **Motor Oil**
Use 15W-40 motor oil in the engine crankcase.

4. **Grease**
Use multipurpose grease to lubricate ball and roller bearings and pivot points.

NOTE: Failure to use the recommended lubricants during the warranty period may void warranties, express or implied, on related components. Submit fluid samples with components returned for warranty consideration.

Service Instructions 3.3

1. **Radiator**

WARNING

THIS UNIT HAS A PRESSURIZED COOLING SYSTEM. REMOVE RADIATOR CAP SLOWLY IN ORDER TO PREVENT SUDDEN RELEASE OF PRESSURIZED COOLANT WHICH MAY CAUSE SEVERE BURNS.

Check coolant level daily. Flush and drain cooling system annually, and refill with 50/50 ethylene glycol/water mixture that includes a rust inhibitor.

NOTE: Accumulations of oil, coolant, and dust will cause engine to run hotter resulting in decreased efficiency. Keep the radiator free of debris.

For arctic (extreme cold weather) operation, you should consider installing a higher temperature thermostat and adjusting the coolant/water ratio to the coolant manufacturer's specifications for such climates.

2. **Fan Belt**
Check tension every 200 operating hours by pulling at the midpoint between pulleys. Adjust tension if deflection exceeds ¾".

3. **Engine**
Check oil level daily. Replace crankcase oil and filter after the first 50 operating hours.
Afterwards, change crankcase oil every 100 hours, and change oil filter every 200 hours.

4. **Fuel Filter**
- A good grade of diesel fuel should be used.
- If the tractor is being fueled from a storage tank, the tank system must have a

fuel filter

- If the tractor is going to operate in extreme cold weather, a fuel additive to prevent gelling must be used.
- Check daily for sediment and excess water. Excess water accumulation indicates a high concentration of water in the fuel. Drain water and/or sediment, and a minimum of fuel from the filter bowl. Also drain water from the fuel tank when evident in the filter bowl.

NOTE: Maintain fuel level at or above Yi full to minimize the risk of drawing water and sediment from the bottom of the tank through the injectors as well as reducing the potential for water condensation in the fuel tank.

- Replace the fuel filter every 200 operating hours.

5. **Transmission**

- Check fluid level daily. Use a hydraulic servicing unit with an inline filter or pre-filter fluid before refilling.

6. **Hydraulic Filters**

CAUTION

CONTAMINATED HYDRAULIC FLUID CAN DRASTICALLY REDUCE THE LIFE OF EXPENSIVE HYDRAULIC COMPONENTS SUCH AS THE HYDROSTATIC TRANSMISSION, MOTORS, PUMPS AND CYLINDERS. DISCONNECTED HYDRAULIC LINES MUST BE COVERED TO PREVENT CONTAMINATION. CAP OR PLUG OPEN PORTS, LINES, OR FITTINGS DURING INSTALLATION, SERVICE OR REPAIR. ALWAYS THROUGHLY CLEAN AROUND AREAS WHERE SERVICE IS TO BE PERFORMED BEFORE EXPOSING ANY PART OF THE HYDRAULIC SYSTEM TO THE ENVIRONMENT.

- Change filter after the first 25 operating hours, and then every 50 hours thereafter.

NOTE: Fill new filter elements with filtered oil and wipe a light film of oil onto the rubber gasket before installing.

7. **Battery**

WARNING

KEEP BATERY AWAY FROM SPARKS OR OPEN FLAMES WHILE CHARGING OR SERVIVING. ELECTROLYTE AS VAPORS MAY EXPLODE. DO NOT ALLOW ELECTROLYTE LEVEL TO DROP BELOW THE BOTTOM OF PLATES TO PREVENT PLATE WARPAGE

- Check terminals for corrosion and electrolyte level every 100 hours. Ensure vent holes in plugs are open, and fill battery cells to the bottom of the vent holes.

NOTE: Maintain specific gravity recommended by the battery manufacturer.

Clean battery as follows to ensure proper conductivity.

- Disconnect cables, ground cable first
- Verify that plugs are closed tightly
- Wash terminals with baking soda & water
- Rinse battery to remove cleaning solution.
- Reconnect cables, ground cable last.
- Coat terminals with petroleum jelly.

CAUTION

REVERSING BATTERY CABLES WILL DAMAGE THE ALTERNATOR.

8. **Air Cleaner**

- Clean filter bowl daily or whenever engine smokes excessively. Check for

leaks or dents daily.
NOTE: The engine manufactures warranty is void if the engine is damaged due to a neglected air cleaner.

- Replace the paper filter element every six months or 200 hours, whichever occurs first. Also Replace the element if you notice that the engine is losing power or smoking excessively, or if you discover pin holes or tears in the element.
- When replacing a filter element, thoroughly clean the inside of the air cleaner cavity with a damp towel or rag before removing dirty filter. Make sure the gasket is seated properly during installation.

9. **Winch**

- See winch operators manual for maintenance and replacement parts information.

10. **Hydraulic Reservoir**

CAUTION

DO NOT OVERFILL!
WATER, MOST LIKELY TO ACCUMULATE IN A HIGH HUMIDITY ENVIRONMENT, MAY DAMAGE THE TRANSMISSION OR OTHER HYDRAULIC COMPONENTS IF NOT REMOVED.

- Check fluid level daily. Ensure tractor is on a level surface before adding fluid. Completely drain and refill system with hydraulic oil every 1000 operating hours, or anytime contamination is suspected.

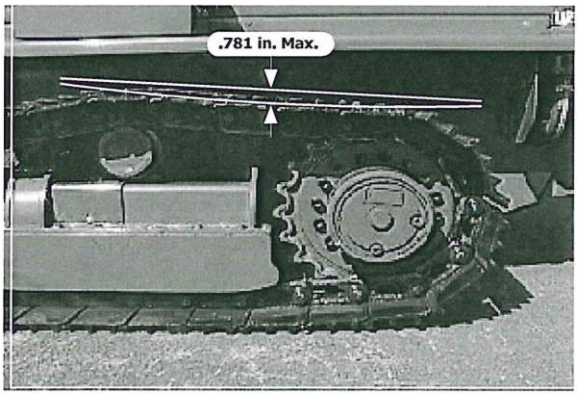
11. **Planetary Gearboxes**

- Inspect for leaks daily. Drain and refill after the first 50 operating hours, and every 100 hours thereafter.

NOTE: Place unit on level surface when refilling, DO NOT OVERFILL.

12. **Tracks**

- Cleaning - Track assemblies should be cleaned with a pressure washer or steam cleaner on a daily basis, or undue wear will occur. Worn track chains tend to derail from the undercarriage.
- Adjustment - Check track tension and inspect for wear daily to assure maximum track life. If tracks are over tightened, undue wear will occur. Under tightening will cause tracks to come off. Maintain track tension by limiting sag measured halfway between the top roller and the drive sprocket to .781". Track tension is adjusted by applying grease through a zerk fitting on the track tensioner.



- Track Grouser - Check pads weekly- make sure fasteners are tight.

NOTE: Track Grouser fasteners dry torque to 80 ft-lbs with a 17 mm socket.

13. **Hydraulic Cylinders**

CAUTION

A LEAKING SEAL WILL NOT CAUSE VISIBLE DAMAGE, BUT MAY RESULT IN FAILURE TO HOLD A LOAD.

- Check for leakage around the rod, and for nicked or dented rod/cylinder. Replace entire seal kit whenever servicing the cylinder.

14. **Mast**

- Inspect for visible damage. Lubricate mast at all four zerk fittings daily or every

twelve operating hours. Verify smooth operation through the entire range of travel. Verify that the hitch and pin are properly installed and the cotter key is intact.

15. **Hydraulic Lines and Fittings**

CAUTION

DO NOT ATTEMPT TO TIGHTEN A FITTING WHILE THE TRACTOR IS RUNNING.

DO NOT OVERTIGHTEN FITTINGS TO STOP A LEAK.

- Inspect for leaks and loose lines. Most leaks can be stopped by replacing an O-ring.

16. **Fasteners**

- Inspect for loose or missing fasteners daily. Unless otherwise specified, Re-torque applicable fasteners every six months.

17. List of Filters

LMC PART NO.	DESCRIPTION OF ITEM	MANUFACTURER	MFG PART NO.	CROSS-OVER NO.
587152	HYD OIL FILTER	DONALDSON	P5503888	NAPA 1759
-	FUEL FILTER	DEUTZ	4132776	-
-	PRE-FILTER/WATER SEPARATOR	DEUTZ	4130241	-
-	ENGINE OIL FILTER	DEUTZ	1174416	NAPA 7085
-	AIR FILTER	DONALDSON	P827653	-

*NOTE – This filter list has been provided for reference. See local dealer/parts store for equivalent OEM parts of equal quality.

The most common operating situations, probable causes and recommended corrective actions are described in the following paragraphs.

Power Train Overheating

- Overloading the tractor while in full speed. Reduce speed when tractor is loaded.
- Prolonged operation with heavy load. Allow 2-3 minutes cool down time before resuming operation.
- Plugged/contaminated oil cooler fins. Service radiator/oil cooler as outlined in section 3.3.1

CAUTION

CLEAN ONLY AFTER ALLOWING TRACTOR TO COOL DOWN.

- Low engine/hydraulic oil levels. Service engine/hydraulic reservoir as outlined in section 3.3.10

CAUTION

WHEN EXCEEDING HIGH PRESSURE RELIEF, TEMPERATURE INCREASES APPROXIMATELY 2-4 DEGREES PER MINUTE

- Exceeding transmission high pressure relief. Allow temperature to stabilize and then minimize maneuvering. If over-temp resulted after attempting to maneuver over unstable terrain, try winching out.

Sluggish Starting

- Low battery output voltage. Service battery as described in section 3.3.7
- Engine malfunction overloading starter or defective starter. Service engine/starter.
- Corrosion on battery terminals causing high resistance resulting in low output voltage.
- Loose, frayed or corroded battery cables resulting in low battery output voltage. Service battery as described in section 3.3.7
- Extreme cold temperatures resulting in low battery output voltage.

Hydraulic System Overheating

CAUTION

CONTINUED OPERATION WHEN HYDRAULIC FLUID TEMPERATURE EXCEEDS 180°F (82°C) WILL RESULT IN SEVERE TRANSMISSION DAMAGE. DISCONTINUE OPERATION UNTIL THE CAUSE OF OVERHEATING IS DETERMINED AND CORRECTED.

- Plugged hydraulic filter. Service hydraulic filter as described in section 3.3.6.

CAUTION

DO NOT USE A PRESSURE WASHER ON THE OIL COOLER.

- Plugged/ contaminated oil cooler fins. Oil cooler fins should be kept free from debris. If they become plugged or contaminated they should be cleaned. Use a water soluble degreaser and water to clean. Debris can be cleared with low pressure air.
- Exceeding transmission high pressure relief. Allow temperature to stabilize, and then minimize maneuvering. If over-temp resulted after attempting to maneuver over unstable terrain, try winching out.
- Overloading the tractor at half speed

or excessive "lugging" at full speed. Reduce load, increase speed and/or	minimize maneuvering.

Remote-Trax Troubleshooting Guide

1. Tractor won't Crank
    a. Check for proper starting procedure
        1. Turn Tractor Ignition switch on
        2. Turn the Transmitter power switch on
        3. Make sure Throttle switch is in idle
        4. Make sure safety switch is in up position
        5. Hit two quick runs on the starter switch and them move to start (down, down, up)(run, run, start)
    b. Do we have adequate Power through the 50 amp fuse? Use a test probe to check if there is power on the inlet side. Check the outlet side.
        i. If you have power to both the inlet and outlet side – Proceed to checking for Radio Power
        ii. Power to the inlet. But not the outlet
            1. Check/Replace 50 amp fuse
                a. Fuse is located near the diesel injector pump on the frame on the side opposite the instrument panel. To check pull the spade type of fuse. If the fuse is burnt that is a sign that there is a major electrical short in the system.
    c. No power to the inlet
        i. Check Battery post connections
        ii. Check Tractor Battery Charge
        iii. Check batteries/Charge in Transmitter
        iv. Check cables and connection at Starter solenoid
        v. Check ground connections
        vi. Check Start-up fuse (continuity test or replace)
    d. Check power to the Radio Reciever
        i. Open radio receiver door and check for lights (with Key on)
            1. Lights On
                a. Check/replace the starter relay
                b. Repair Radio
                    i. Miratron
                        1. Send Transmitter and Receiver to LMC at customers expense (except warranty)
    e. No Lights
        i. Check power at the radio fuse
            1. Yes there is power
                a. Check/replace the fuse to the radio
                b. Check wires from fuse to radio transmitter
                c. Check the cannon plug at the transmitter
                d. Hook-up Back-up cable and attempt to start
                e. Repair Radio

2. Mast won't go up or down when joystick is actuated
    a. Check winch in and out function
        i. If winch operates
            1. Check the mast-up fuse
            2. Check the mast-down fuse
            3. Check the Mast Valve
                a. Manually override the mast valves (Engage the joystick)
                    i. Valve does not shift manually
                        1. Replace valve
                b. Valve does shift Manually
                    i. Inspect the din connector at the valve; is there adequate power (12.9V)?
                        1. Yes
                            a. Radio Issue
                        2. No
                            a. Check Battery voltage
        ii. If winch does not operate
            1. Is the freewheeling lock engaged?
            2. Power to the dump valve
                a. Yes Power
                    i. Check the Dump Valve – Physically remove from cartridge, remove spool
                        1. Valves actuates
                        2. Do we have hyd. fluid flow to the dump valve?
                            a. Yes
                            b. Manually override the mast valves (Engage the joystick)
                            c. Valve does not shift manually
                            d. Replace valve
                            e. Valve does shift Manually
                            f. Inspect the din connector at the valve; is there adequate power (12.9V)?
                            g. Yes
                            h. Radio Issue
                            i. No
                            j. Check Battery voltage
                            k. Valves don't actuate
                            l. Replace coil or valve
                b. No Power
                    i. Do we have power to the fuse block
                        1. Yes
                            a. Check Dump Valve Fuse
                            b. Check Wire from fuse block to the dump valve
                        2. No
                            a. Radio Issue

3. Winch won't go in or out
    a. Check Mast in and out function
        i. If Mast operates
            1. Check the mast-up fuse
            2. Check the mast-down fuse
            3. Check the Mast Valve
                a. Manually override the mast valves (Engage the joystick)
                    i. Valve does not shift manually
                    ii. Replace valve
                b. Valve does shift Manually
                    i. Inspect the din connector at the valve; is there adequate power (12.9V)?
                        1. Yes
                            a. Radio Issue
                        2. No
                            a. Check Battery voltage
        ii. If Mast does not operate
            1. Is the freewheeling lock engaged?
            2. Power to the dump valve
                a. Yes Power
                    i. Check the Dump Valve – Physically remove from cartridge, remove spool
                        1. Valves actuates
                            a. Do we have hyd. fluid flow to the dump valve?
                            b. Yes
                            c. Manually override the mast valves (Engage the joystick)
                            d. Valve does not shift manually
                            e. Replace valve
                            f. Valve does shift Manually
                            g. Inspect the din connector at the valve; is there adequate power (12.9V)?
                            h. Yes
                            i. Radio Issue
                            j. No
                            k. Check Battery voltage
                            l. Valves don't actuate
                            m. Replace coil or valve
                b. No Power
                    i. Do we have power to the fuse block
                        1. Yes
                            a. Check Dump Valve Fuse
                            b. Check Wire from fuse block to the dump valve
                        2. No
                            a. Radio Issue

4. Tractor Engine Runs but will not move either direction
    a. Does it throttle up?
        i. Check Ground wires on the transmission harness plugs
        ii. Check for tractor battery low voltage (should have 12+ volts)
        iii. Open receiver and see if LED lights come on when the joystick is moved
            1. Have LED lights?
                a. Proceed to manual activation of solenoid valve
            2. No LED lights
                a. Attempt to move with back-up cable (no back-up cable on the Microtronics)
                    i. Tractors moves
                        1. Check Transmitter batteries
                        2. Radio Problem (RF)
                    ii. Tractor does not move
                        1. Radio Problem
        iv. Manually actuate the solenoid valve. Safety language here.
            1. Tractor moves
                a. Radio problem
            2. Tractor does not move
                a. Transmission problem
    b. Tractor does not throttle-up
        i. Check the throttle fuse
        ii. Check the ground at the coil
        iii. Check the throttle cylinder
        iv. Actuate High Speed toggle switch and check power at the fuse
            1. No Power
                a. Radio Problem
        v. Run the mast up and down (TC30-2)
            1. Mast does not go up and down
                a. Check flywheel drive coupling
        vi. Radio Problem
5. Tractor shuts down (engine runs but will not move) after being operated for a period of time
    a. Check the oil temp gauge (Is the oil so hot it thins out and causes excessive internal losses in the system)
    b. Check pressure on the charge pump circuit (pressure should be above 250 psi at full throttle)
    c. If below 250 psi replace charge pump.
6. Tractor moves but won't track straight
    a. Has the customer tinkered with the radio or replaced the coil?
    b. Contact Factory
    c. Check for Sand/Snow obstructions
7. Tractor is hard to control at start-up
    a. Oil is cold. Heat up oil by running the mast up and running the oil over the relief valve for approximately 5 minutes.
    b. Check oil type (Std AW46) Cold Climate Oil is AW32, and Hot Climate Oil is AW68.

8. Loose Track or Track comes off
    a. How are you operating the tractor (Pushing or Pulling)? If pulling a heavy home there is a lot of force on the spring causing it to collapse, thus loosening the tracks. Solution is to try and push the home, or use the winch if you have to back up the hill.
    b. Is track tensioned properly using the proper checking procedure outlined in the manual?
    c. Does the chain have excessive wear?
    d. Have the guides worn off the bottom rolls?
    e. Has spring collapsed?
9. Tractor loses traction going up/down hills on pavement
    a. Pulling use winch to help anchor
    b. Pushing use an anchoring vehicle ahead of the house
10. One Track Moves the Other track won't
    a. Swap transmission plug-ins and see if the problem follows the plug-in
        i. Follows
            1. Radio/Electrical Problem
        ii. Does not follow
            1. Check Oil in Planetary
                a. Too much oil is a sign of a seal leak and the planetary is filling with hydraulic oil and locking up
            2. Unplug the good transmission
            3. Remove the brake fuse and see if we are building a load on the engine
                a. Building Load
                    i. Check for physical obstruction in the track
                b. Not Building a Load
                    i. Carefully getting on the fender, manually actuate the valve to see if that solves the problem
                    ii. Override works
                        1. Repair/Replace Valve (check spring)
                    iii. Override Does Not Work
                        1. Probably a radio problem
11. Tractor will only move in forward or reverse
    a. Swap transmission plug-ins and see if the problem follows the plug-in
    b. Probably a radio problem
12. I lost/damaged my Transmitter
    a. Send to LMC for repair
13. Radio Repair
    a. Send to LMC for repair
        i. Provide customer with written instructions to insure the radio system (transmitter and receiver) for at least $5,000
        ii. Get a written list of the problems the customer is having
        iii. Call Miratron tech support and get a RMA number (Jeff Ryan)
        iv. Open a Sales Order tied to the RMA number (even on a warranty) (Record the radio serial number on the sales order)
        v. Open Work Order for the radio repair

vi. Open a PO to Miratron tied to the Work Order
vii. Have customer ship radio to LMC – Customer pays freight, even under warranty
viii. Receive Radio and then UPS to Miratron (Special instances we might hand deliver)
ix. Receive Quote for repairs from Miratron
x. Contact customer with quote and get OK to proceed. Get credit card payment before proceeding.
xi. Call Miratron and release purchase order
xii. Have Miratron ship radio to LMC
xiii. Ship Radio to Customer

14. How do you tell what year a Tractor was built
    a. Serial number format – 12D1234
        i. 12 – Is the year of manufacture (2012)
        ii. D – Is the frame Style
            1. C – TC30-1 TC30-2, Boman's (up to 2005)
            2. D – TC30-3 (After 2005)
        iii. 1234 – Sequential Serial Number
            1. No updates available for TC30-1
            2. Updates to Miratron available for TC30-2 and TC30-3

Introduction

• This illustrated parts list identifies the subassemblies and replaceable components for the Remote Trax remotely controlled tractor. All components that can be separately identified are listed.

Parts Information

How to Order Parts

To insure promptness and accuracy in filling your order, the following information MUST be given.

1. Name and address of person or company to whom the invoice is to be sent.
2. Name, address and phone number where parts are to be sent.
3. Shipping instructions: (UPS, Truck, Air, etc.)
4. Transportation charges (prepaid or collect)
5. Your order number
6. Model number of the machine
7. Serial number of the machine
8. Quantity of part(s)
9. Part numbers
10. Description of parts

Buying Parts Not Manufactured By Layton Manufacturing Company.

Many parts purchased by Layton Manufacturing Company may look like standard parts, but are in fact manufactured to special tolerances, or special alloys, or have been specially heat treated; consequently, serious problems can arise if these facts are not realized and substandard parts are substituted unknowingly. We realize that in many cases it may be more convenient to buy stock parts direct, rather than through Layton Manufacturing Company. We have identified these items in our parts list. However in the event of unsatisfactory performance resulting from the use of stock items not identified as such, Layton Manufacturing Company WILL NOT be held responsible.

Receipt of Parts

Layton Manufacturing Company defers responsibility for broken, lost or damaged goods, when upon delivery of the merchandise the transportation company from whom a receipt shows that the shipment was received in good condition. If any material is short and/or damaged, a notation should be on the carrier agent's bill.

Returning Parts

Permission to return parts or equipment MUST be received from Layton Manufacturing Company before returning parts. When requesting permission, itemize the parts and quantities to be returned and show the INVOICE NUMBER AND DATE of original purchase. Transportation charges MUST be PREPAID. Refer to Warranty Page, Limited Warranty and Limitation of Liability, for additional information.

Format

Component parts list are presented in 6 parts groups. Illustrations are accompanied by a 5 column reference chart.

Item

Index numbers found in this column correspond to the numbers found on the respective parts location illustration. Some items are illustrated primarily to show their orientation to other parts or systems.

Notes

This column identifies footnotes applicable to specified items.

Part Number
This column lists the Layton Manufacturing Company part number.

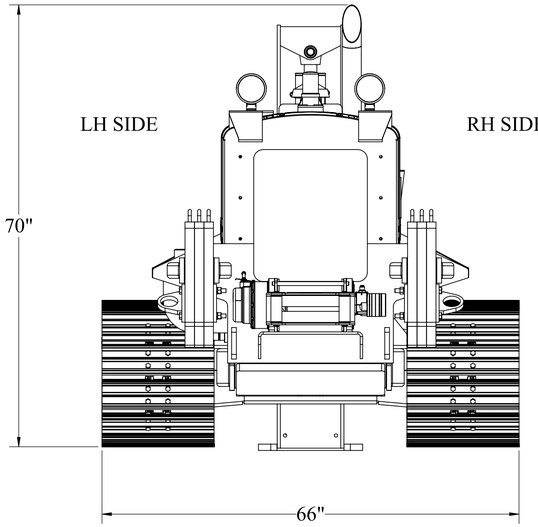
Qty
This column lists the total number of a specific item required per assembly or subassembly. This number may not necessarily be the number of items used in the end item or system. Only one set of components is listed whenever the components of two or more assemblies are the same. "AIR" (As Required) identifies bulk items whose length or other dimension must be specified when requisitioning.

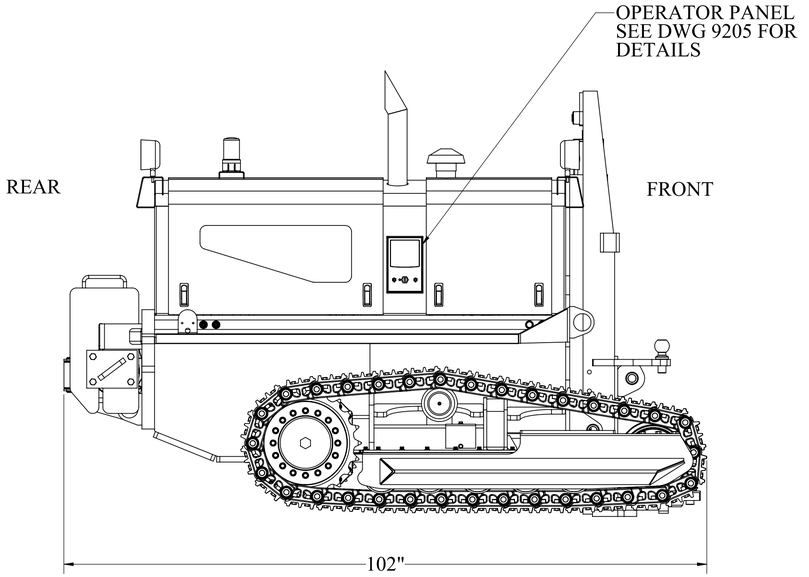
"Ref ' identifies items for reference purposes only.

"NSS" (not sold separately) identifies items which must be ordered as a set because they are closely mated at manufacture.

Description
This column lists the item nomenclature necessary to identify the item. Additionally, cross-reference for repairable subassemblies will be found in this column.

OPERATIONS	
1	ASYMISC
2	
3	
4	





ITEM NO.	Default/QTY.	PART NUMBER	DESCRIPTION
1	1	7032	Breather, Filler Kit HC-120-L
2	1	7246	FITTING, ELBOW, 1" HOSE X 1-1/4"MNPT
3	2	7346	FITTING, STRAIGHT, #8MORB X 1/2"NPT
4	2	7360	MAST GUIDE BAR SHIM
5	1	7491	FAIRLEAD, WINCH
6	1	7578	MAST
7	4	7616	Flood Lamp, 12V 35W
8	1	7620	ASSEMBLY, RETURN MANIFOLD
9	1	8381	Winch, Warn Series 12-A-48
10	2	8472	KEEPER PLATE
11	1	8473-LH	KEEPER PLATE , LH
12	1	8473-RH	KEEPER PLATE, RH
13	6	8476	COUNTERWEIGHT
14	1	8525	SHELF, WELDMENT-BATTERY
15	8	8718	CS-SS-HX 5/8-11 UNC x 7" LG, GR8 YELLOW
16	1	9198	BATTERY, 24F, 800 CCA
17	1	9016	FENDER COVER
18	1	9032	FILTER ELEMENT, 10 Micron, ZINLE-10
19	1	9033	FILTER HOUSING, 1-1/4 NPT, ZINSF-120-25-1-3
20	1	9165	FRAME WELDMENT
21	1	9169	Inlet Hood, Donaldson # H001379
22	1	9176	MOUNT PLATE, FUEL PUMP
23	1	9183	Cover, Fender, RH
24	1	9193	Strobe, Amber, 85 FPS, 12-80 VDC
25	1	9194	HOSE, FUEL FILLER, 11" LG
26	1	9205	ASSEMBLY, MIDDLE BULKHEAD
27	1	9208	BULKHEAD, REAR
28	1	9211	BULKHEAD FRONT
29	1	9215	ASSEMBLY, FUEL TANK
30	1	9221	ASSEMBLY, HYDRAULIC TANK
31	1	9222	ASSEMBLY, AUX MANIFOLD
32	1	9224	ASSEMBLY, DUMP VALVE MANIFOLD
33	1	9246	WELDMENT, EXHAUST STACK, RT75
34	1	9267	ASSEMBLY, REAR HOODS
35	1	9268	ASSEMBLY, FRONT HOODS
36	1	9271	ASSEMBLY, BRAKE MANIFOLD
37	8	9278	CATCH, HOOD LATCH
38	1	9290	*Radio, Sys.Miratron CMD16-10352
39	1	9293	ASSEMBLY, COOLING SYSTEM
40	1	9296	WELDMENT, DIVIDER,
41	2	9298	ASSEMBLY, UNDERCARRIAGE
42	1	9299	ASSEMBLY, POWERTRAIN
43	1	9326	ASSEMBLY, INTAKE TUBING
44	2	10835	Plug, Magnetic Flush Seal 3/4 NPT X 7/8" Taper
45	1	12533	FIT-MS, Dixon DXST20 1-1/2 NP
46	1	12543	FITTING, ELBOW, #16MJIC X 1-1/4"MNPT, 90
47	1	12551	FITTING, BULKHEAD BRANCH TEE, #4 MJIC
48	8	14648	HEX NUT 5/8-11 UNC, GRADE 8 ZINC YELLOW PLATED
49	1	400200	90° ELBOW, 1/2" JIC X 3/4" NPTF MALE, 2501-08-12
50	2	400885	1/2" JIC X #8 SAE/ORB
51	8	500666	WS-MS-LK 5/8" SEA GR 5
52	22	585098	5/8-11 UNC x 1-3/4" LG. HEX CAP SCREW, GR 8 YELLOW
53	1	587096	CYLINDER ASSEMBLY
54	2	587097	GUIDE BAR
55	2	587099	LIFT CYLINDER TOP & BOTTOM PIN
56	2	587103	E-STOP SWITCH MNT. BRACKET
57	1	587178	Pipe Plug 3/8 Allen
58	2	588051	Ball Hitch, 2-5/16
59	2	588136	SAE #24 Hose Clamp, 1-1/16"-2"
60	1	588151	7/8" DOA. PIN, HITCH
61	1	588152	HITCH, STD 2-1/2" SQ. x 11" A514
62	2	5601061	FITTING, STRAIGHT, #6MORB X #8MORB
63	2	5601064	FITTING, STRAIGHT, #8MJIC X #10MORB
64	4	5601088	FITTING, 6801-8-8-NWO MJIC-MORB 90
65	2	6081213	FITTING, PLUG, #8MORB

FLUIDS AND TREATMENT

ENGINE OIL: DELO 400-15-40W - LAYTON # SS-0201 - 10QTS
ENGINE COOLANT: ANTI-FREEZE - LAYTON # SS-0242 - 1-1/2 GAL
ENGINE COOLANT TREATEMENT: LAYTON # SS-0236

HYDRAULIC OIL: AW46 - LAYTON # AW-46 - 15 GAL
CHECK OIL LEVEL AFTER SYSTEM IS PRIMED

REFERENCES:

ELECTRICAL SCHEMATIC - SEE DWG RT75-A-002-01
WIRE HARNESS DETAILS - SEE DWG RT75-A-002-02

FUEL SCHEMATIC - SEE DWG RT75-A-001-01

HYDRAULIC SCHEMATIC - SEE DWG RT75-003

TOTAL WEIGHT	APPROX. 7500

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	***	
CHECKED BY:	***	
APPROVED BY:	***	***

DEFAULT TOLERANCES				
	DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
	XX.XX	± 0.01	FORMED ANGLES	± 0.5°
	XX.XXX	± 0.008	SURFACE FINISH	-

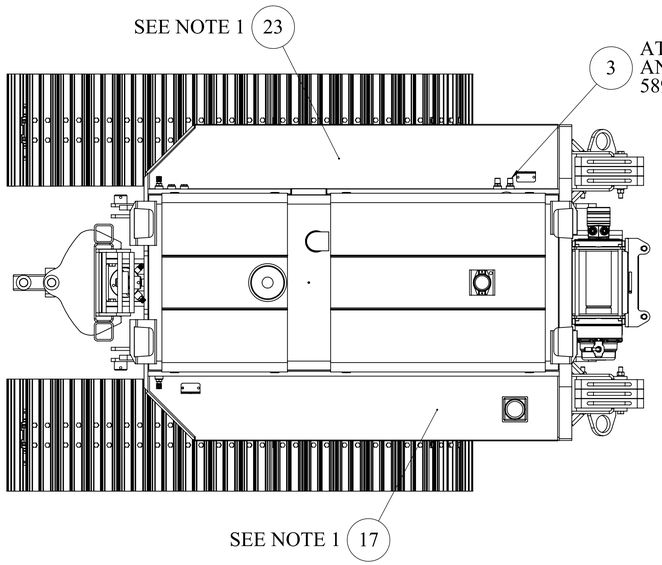
LAYTON SYSTEMS

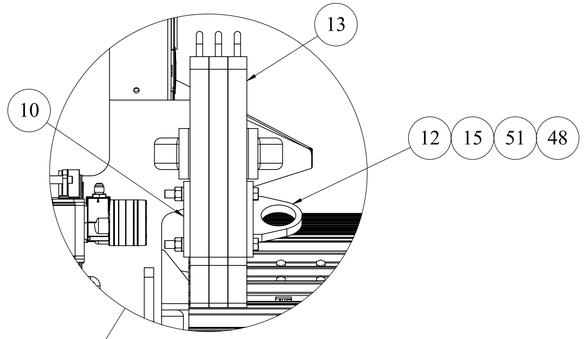
TITLE: REMOTE TRAX RT75

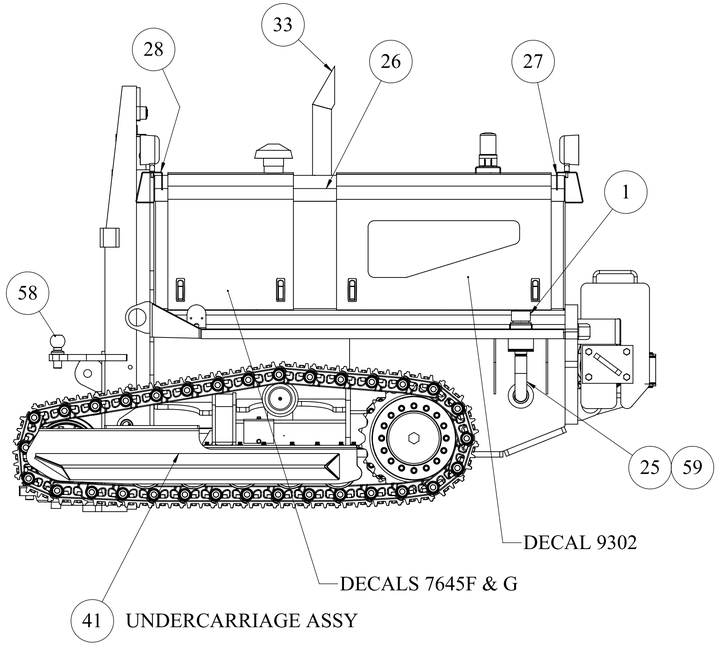
PROJECT No.		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	D	1:12	RT75-A	0	1 OF 2

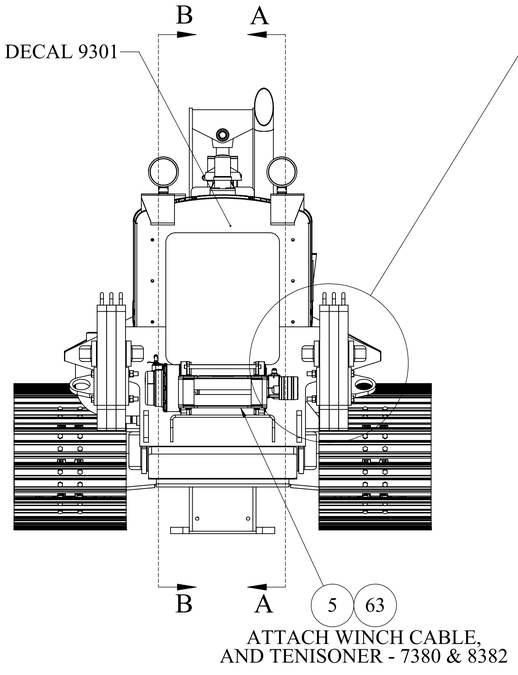
RT75-A

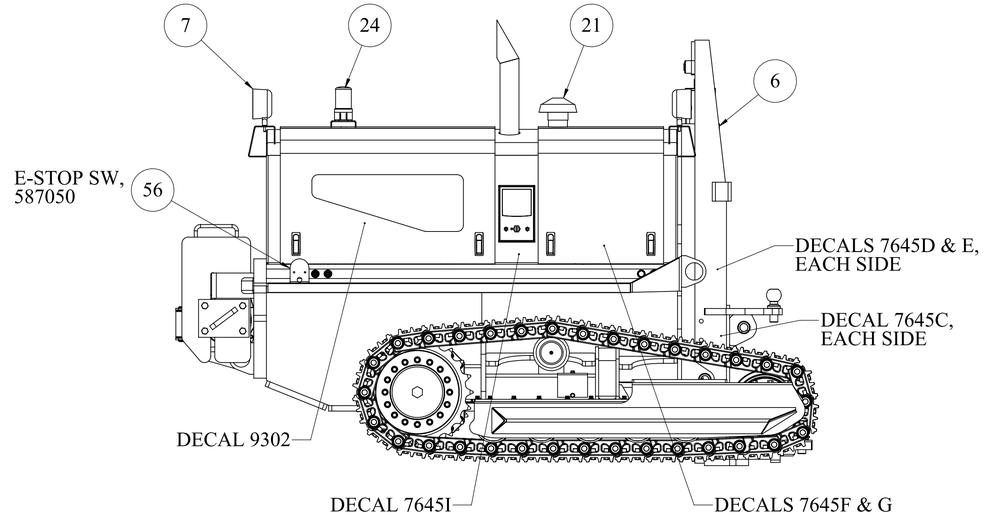
OPERATIONS	
1	ASYMISC
2	
3	
4	











NOTES:

1. ATTACH FENDER COVERS WITH DOUBLE SIDED TAPE.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	***	
CHECKED BY:	***	
APPROVED BY:	***	***

UNLESS OTHERWISE SPECIFIED				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

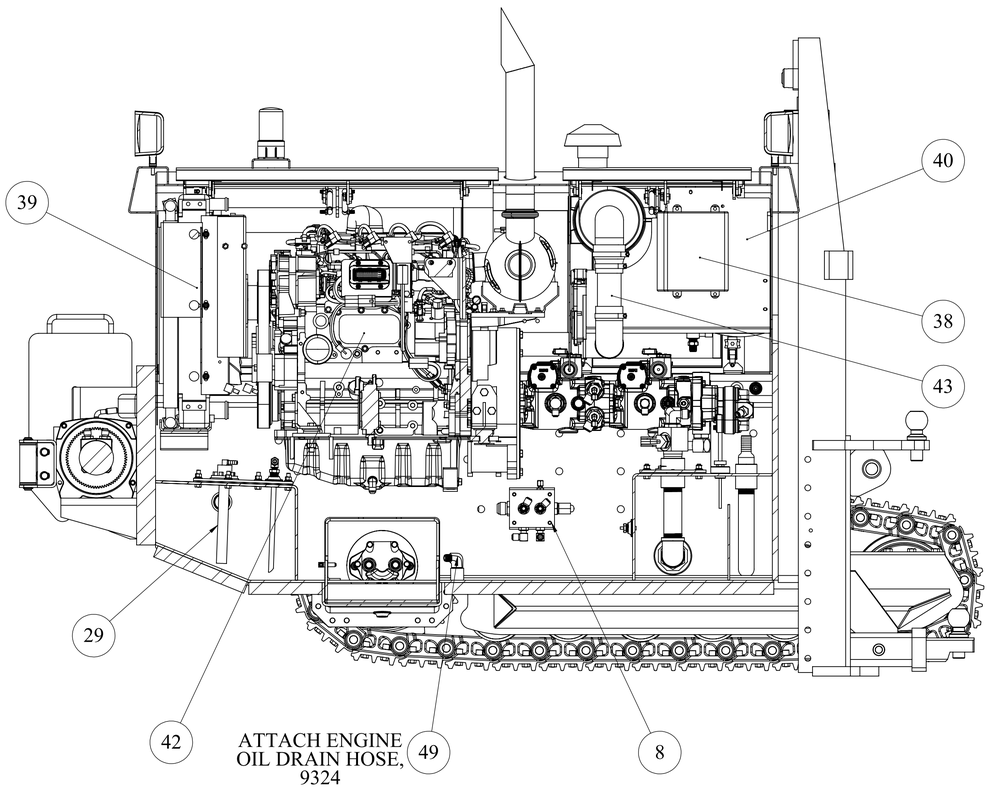
LAYTON SYSTEMS

TITLE: REMOTE TRAX RT75

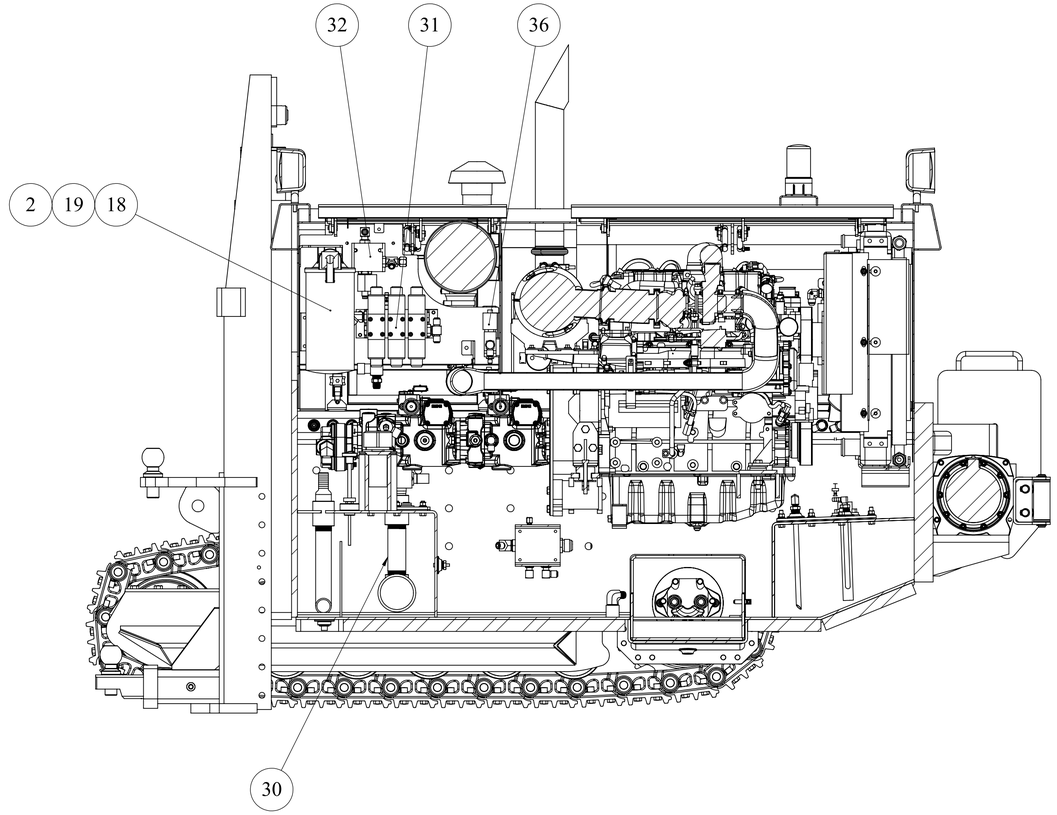
PROJECT No.		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	D	1:12	RT75-A	0	2 OF 3

REV 0
D RT75-A
B

OPERATIONS	
1	ASYMISC
2	
3	
4	



SECTION A-A



SECTION B-B

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	***	
CHECKED BY:	***	
APPROVED BY:	***	***

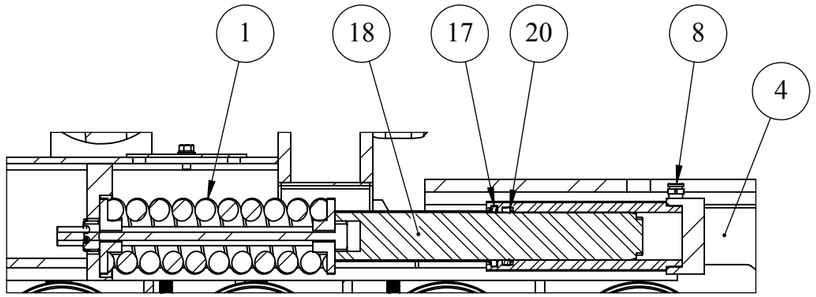
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

TITLE: REMOTE TRAX RT75

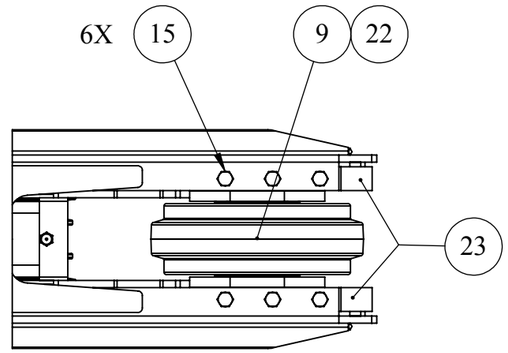
PROJECT No.		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	D	1:12	RT75-A	0	3 OF 3

REV 0
RT75-A
D

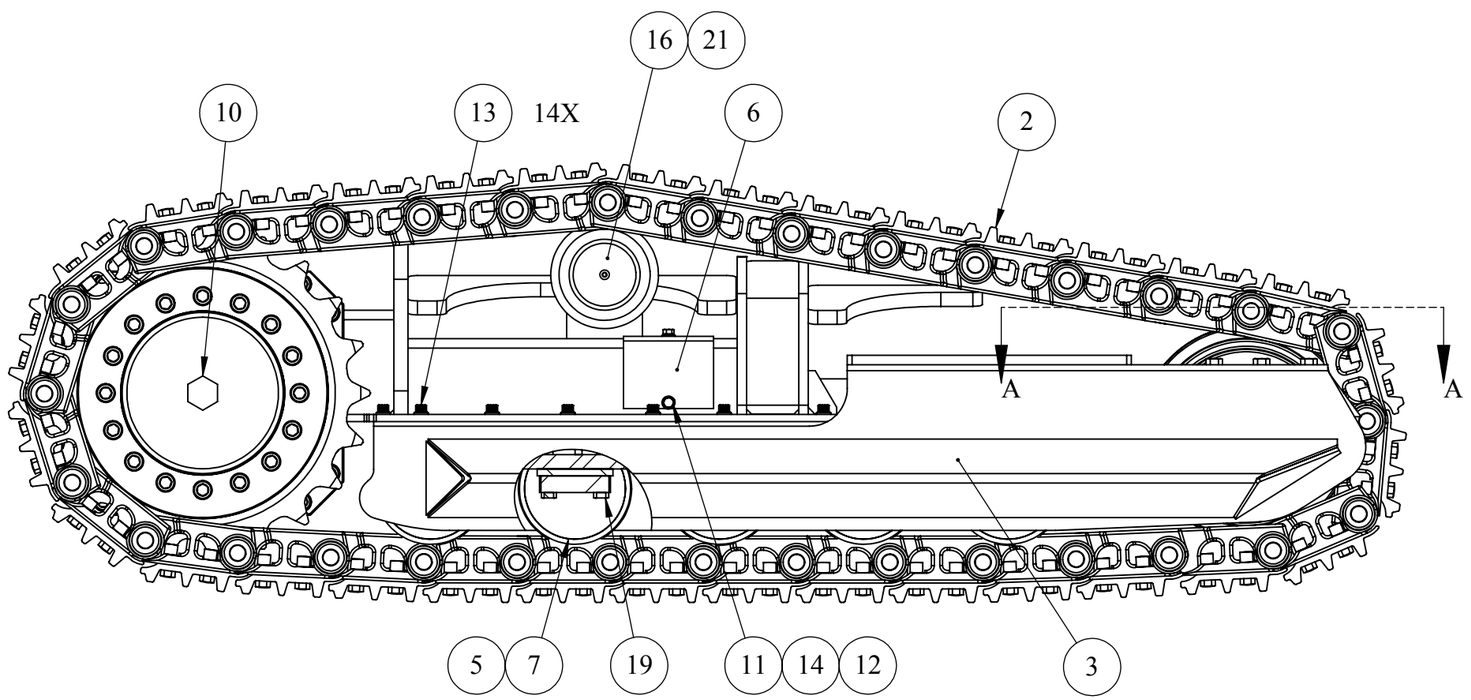
OPERATIONS	
1	ASYMISC
2	
3	
4	



SECTION - TRACK TENSIONER



SECTION A-A



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	7352	ASSEMBLY, SPRING, TRACK TENSION
2	1	8387	TRACK ASSEMBLY
3	1	8454	Frame, Track, Tapered
4	1	8483	YOKE WELDMENT
5	10	8574	Spacer, Bottom Roll
6	1	8579	SPRING COVER
7	5	8596	Roll, Bottom
8	1	8642	GREASE FITTING, BUTTION HEAD, 1/4" NPT
9	1	8732	Roll, Idler Berco VA 1821
10	1	9294	ASSEMBLY, FINAL DRIVE
11	2	335	5/16-18 UNC x 3/4" LG. HEX CAP SCREW,
12	2	12996	5/16" SCREW SIZE TYPE A SAE FLAT WASHER, GR 5
13	14	300061	CS-MS-12 1/2-13 x 1.50 MS 12 Point
14	2	500447	WS-MS-LK 5/16"
15	6	500785	CS-SS-HX 1/2-13 UNC x 1-1/2" LG ASTM A193 GRADE B8 CLASS 2
16	1	585296	ROLLER, TOP, CA302
17	1	585323	2" DIA ROD WIPER PARKE D02000
18	1	587098	PISTON TRACK ADJ.
19	20	587166	7/16-14 UNC x 2-1/4" LG. HEX CAP SCREW, GR8 MS
20	1	588104	SEAL, PARKER 18702000-312B
21	2	588105	CS-MS-SH 3/4-10 UNC x 1-3/4" LG
22	4	588106	CS-SS-SH M10-1.5 x 25mm LG.
23	2	589135	IDLER GUIDE BAR

NOTES:

1. ASSEMBLY CONFIGURATION SHOWN FOR RH SIDE.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/13/2014
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No:

THIRD ANGLE PROJECTION

SIZE: B

SCALE: 1:8

DRAWING No.: 9298

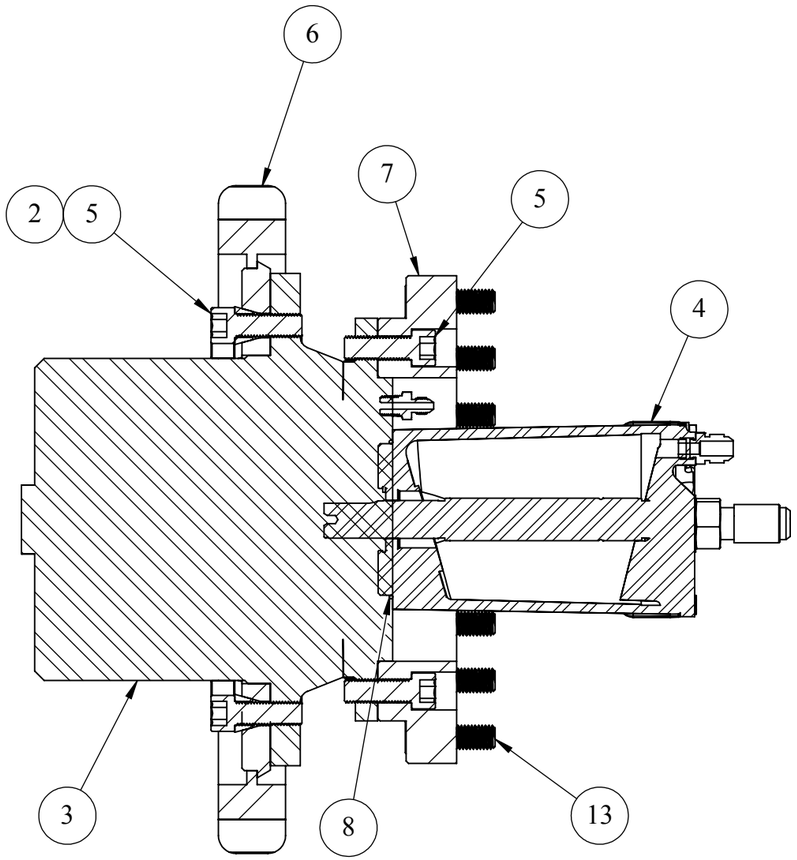
REV: 0

SHEET 1 OF 1

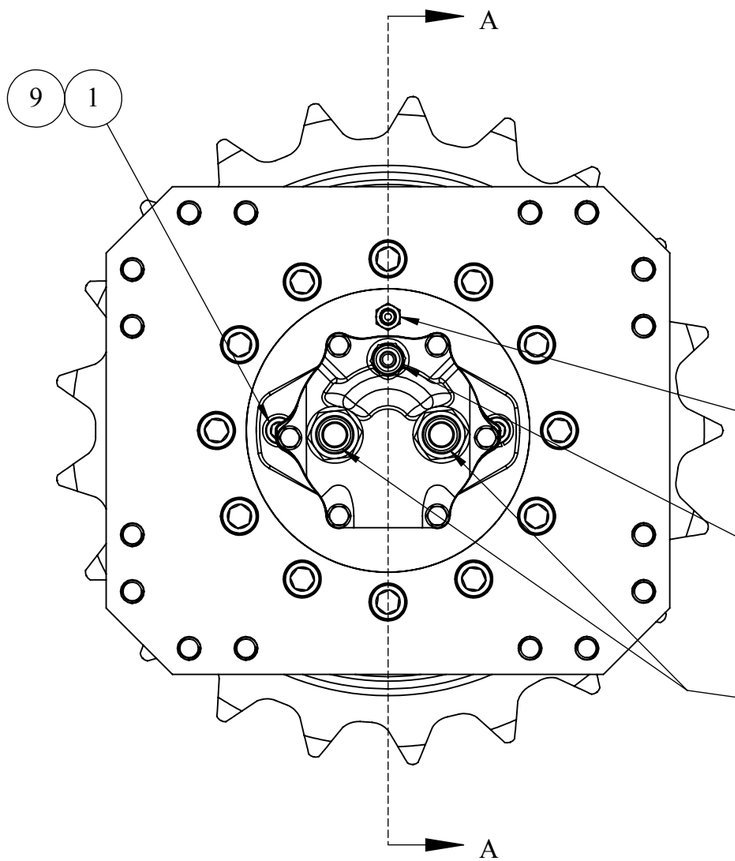
TITLE: ASSEMBLY, UNDERCARRIAGE

OPERATIONS	
1	ASYMISC
2	
3	
4	

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	2	7151	CS-MS-HX M12-1.75 x 35mm GR 8.8 Plain
2	16	7203	DRIVE WEDGE, 5/8" ID, EUCE-5743
3	1	7215	Gear Planetary 705C2H33C30S4DH N
4	1	7218	Motor, Hydraulic, Eaton 74624-D AB
5	28	7353	CS-MS-SK M16-2.00 x 45mm GR-Plain
6	1	7371	21 TOOTH SPROCKET
7	1	7474	PLATE, HUB ADAPTER
8	1	12550	O-RING, -155 4" I.D. X 3/32" C.S.
9	2	500058	WS-MS-LK 1/2" GR5
10	1	607215	FITTING, 6400-08-06-O, MJIC X MORB
11	2	A69-12	FITTING, 6400-L-12-12-O, MJIC X MORB LONG
12	1	A148-51	FITTING- 7000-04-04, 4MBSPT-4MJIC
13	16	G14-607	CS-MS-HX 5/8-11 X 1.75 Plain



SECTION A-A



12 ORIENT ASSEMBLY FOR BRAKE FITTING ON TOP SEE NOTE 1

10 CASE DRAIN

11 HYDROSTATIC POWER CONNECTION

NOTES:

1. BRAKE FITTING AND HOSE MUST BE INSTALLED BEFORE ATTACHING ADAPTER PLATE TO PLANETARY HUB.

REV.	DESCRIPTION	BY	DATE
	REVISION TABLE		

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	09/16/14
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No: -

THIRD ANGLE PROJECTION

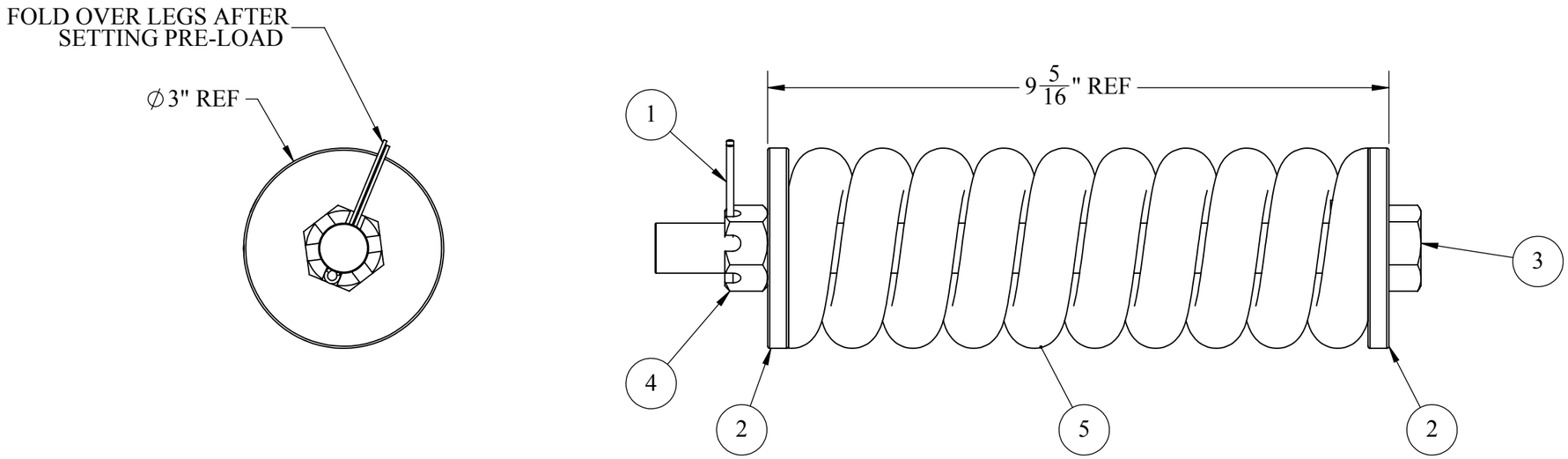
SIZE B | SCALE: 1:4 | DRAWING No.: 9294 | REV 0 | SHEET 1 OF 1

LAYTON SYSTEMS

TITLE: ASSEMBLY, FINAL DRIVE

OPERATIONS	
1	ASYMISC
2	
3	
4	

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	500264	COTTER PIN, 1/8 X 2-1/2" LG. ZINC PLATED
2	2	580735	UNDER CARRIAGE GUIDE
3	1	580736	BOLT, MODIFIED CAPSR 3/4-10 x 11" LG.
4	1	580762	HEX NUT, SLOTTED, 3/4-10 THICK
5	1	585322	SPRING, COMP. 0.812 WIRE DIA X 3 OD X 10 LG



REV.	DESCRIPTION	BY	DATE

REVISION TABLE

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	10/20/2014
CHECKED BY:		
APPROVED BY:		

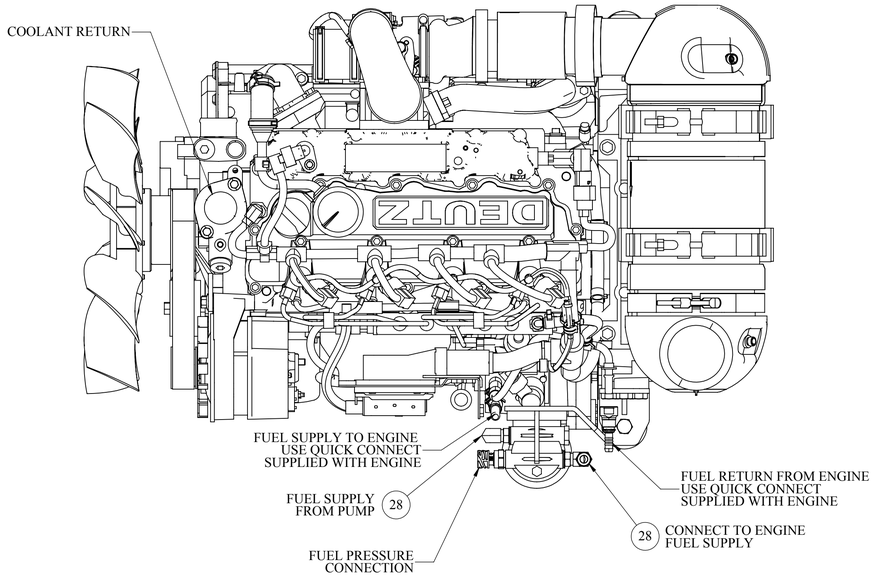
DEFAULT TOLERANCES

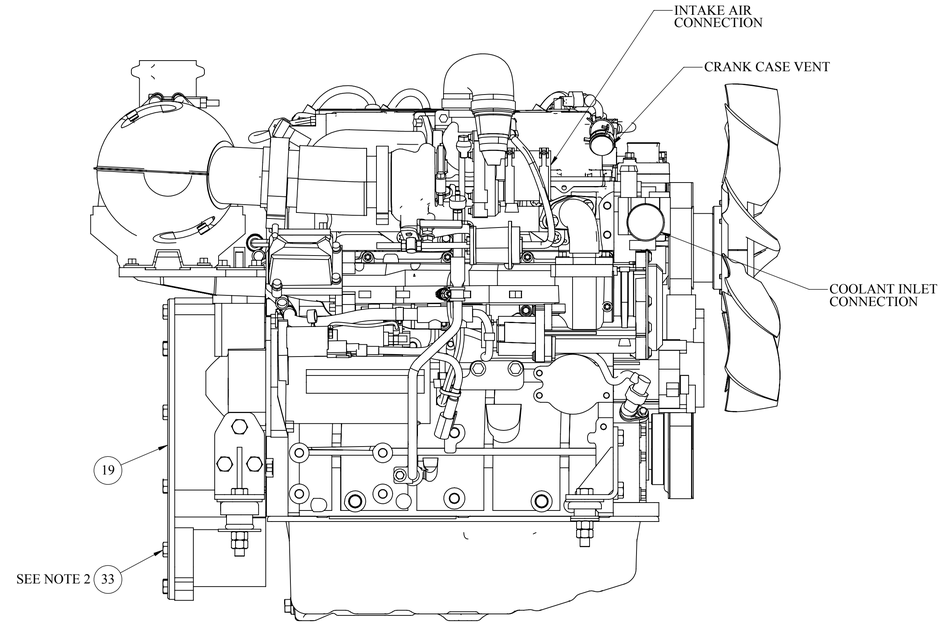
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
XX.XX	± 0.01	FORMED ANGLES	± 0.5°
XX.XXX	± 0.008	SURFACE FINISH	-

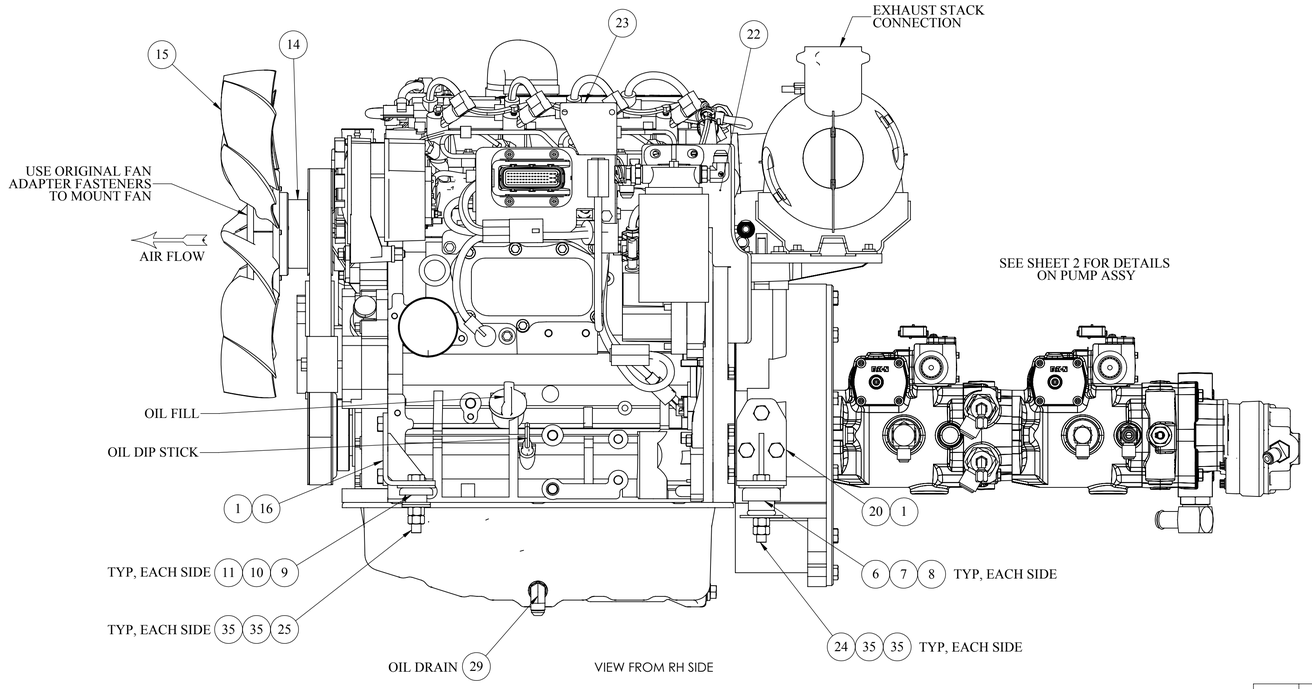
TITLE: ASSEMBLY, SPRING, TRACK TENSION

PROJECT No:		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	B	1:2	7352	0	1 OF 1

OPERATIONS	
1	ASYMISC
2	
3	
4	







ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	10	7151	CS-SS-HX M12-1.75 x 35mm LG. GR8.8
2	1	7377	Pump Assembly, Hydrostatic Drive
3	1	7734	FITTING, W/#4 ORB TEST PORT, 6801-12-12-NWO MJIC-MORB 90
4	1	7735	FITTING, W/TEST PORT 6801-L-12 -12-NWO MJIC-MORB 90
5	2	7736	FITTING, W/#4 MORB TEST PORT - 6801-12-16-NWO MJIC-MORB 90
6	2	8658	Isolator, 2.0"T x 2.0 OD, 300LB MAX
7	2	8659	HEADWASHER, FOR CBA20 ISOLATOR
8	2	8660	TAILWASHER, FOR CBA20 ISOLATOR
9	2	8661	ISOLATER, 1.25"T X 1.75" O.D. 250LB MAX
10	2	8662	HEADWASHER, FOR CB-1121 ISOLATOR
11	2	8663	TAILWASHER, FOR CB-1121 ISOLATOR
12	8	8692	CS-SS-HX M10-1.50 x 25mm, CROSSDRILLED
13	1	9155	Deutz TD2.9, See Notes
14	1	9157	ADAPTOR, RT75 RAD. FAN
15	1	9166	Fan, Engine
16	1	9179	WMNT, RT75 RH REAR ENG SIDE MNT
17	1	9173	Flex Plate - BOWEX 48/FLE-PA/SAE/10
18	1	9174	Drive Coupler - BOWEX T48/15T/1.000/SAE/CC/44L
19	1	9175	Pump Mount Plate - PMP/SAE 4/ST/SAE-B/2-4/9.5
20	2	9178	WMNT, RT75 FRONT ENG SIDE MNT
21	1	9179	WMNT, RT75 LH REAR ENG SIDE MNT
22	1	9249	MOUNT, FUEL FILTER
23	1	9240	Mount Plate, Glow Plug Relay
24	2	11872	CS-SS-HX 1/2-13 UNC x 3-1/4" LG GRADE 5
25	2	11993	CS-SS-HX 1/2-13 UNC x 2-3/4" LG GRADE 5
26	1	12569	Fitting, 6801-8-12-NWO, #8MJIC X #12MORB, 90
27	2	16217	1/2" SCREW SIZE TYPE A SAE FLAT WASHER, MS
28	2	16420	ELBOW, #8 MJIC X M16X1.5 ORB
29	1	-	FITTING, ELBOW, #8MJIC X M18X1.5M-ORR
30	2	500058	WS-MS-LK 1/2" GR5
31	1	500701	FITTING, 304-C-08 JIC Cap Nut
32	2	500785	CS-SS-HX 1/2-13 UNC x 1-1/2" LG ASTM A193 GRADE B8 CLASS 2
33	12	588190	CS-SS-HX M10-1.50 x 25mm, ZINC
34	1	589053	Pump, Hyd Eaton 26008 RZE
35	8	607497	NUT, 1/2-13 UNC HEX GR 5
36	4	5601072	FITTING, 6801-04-04-NWO, MJIC X MORB, 90
37	4	5601083	FITTING, CAP, 0304-C-04, FJIC
38	1	5601088	FITTING, 6801-8-8-NWO MJIC-MORB 90
39	1	6080771	FITTING, ELBOW, #12MJIC X #16MORB, CAST
40	2	A24-8	RUN TEE, #8 MJIC X #8 MJIC X #8MORB
41	1	A40-16	HOSE ELBOW, 1" HOSE X #16 MORB
42	2	A102-56	STRAIGHT REDUCER, 16MORB X 12FORB
43	1	A11-56	FITTING, ELBOW, 45 DEG, #8MJIC X #10MORB

NOTES:

1. USE RED LOCTITE 271 FOR FASTENERS WHERE NOTED.
2. USE WIRE ON FASTENERS USED TO COUPLE FLEX PLATE TO FLYWHEEL FOR SAFETY RETENSION PURPOSES.
3. FITTINGS MUST BE INSTALLED TO PROPER ANGLES (WHERE APPLICABLE) WITH REGARD TO HOSE SLACK TO PREVENT FAILURE CAUSED BY CHAFING.
4. SEE DWG RT75-001 FOR FUEL SYSTEM SCHEMATIC AND INFORMATION REGARDING HOSE INSTALLATION.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/18/2014
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES

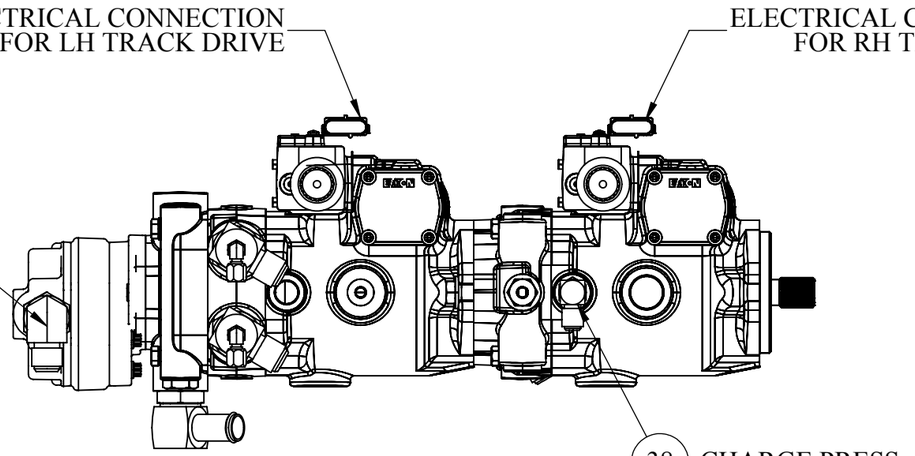
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
XX.XX	± 0.01	FORMED ANGLES	± 0.5°
XX.XXX	± 0.008	SURFACE FINISH	-

TITLE: ASSEMBLY, POWERTRAIN

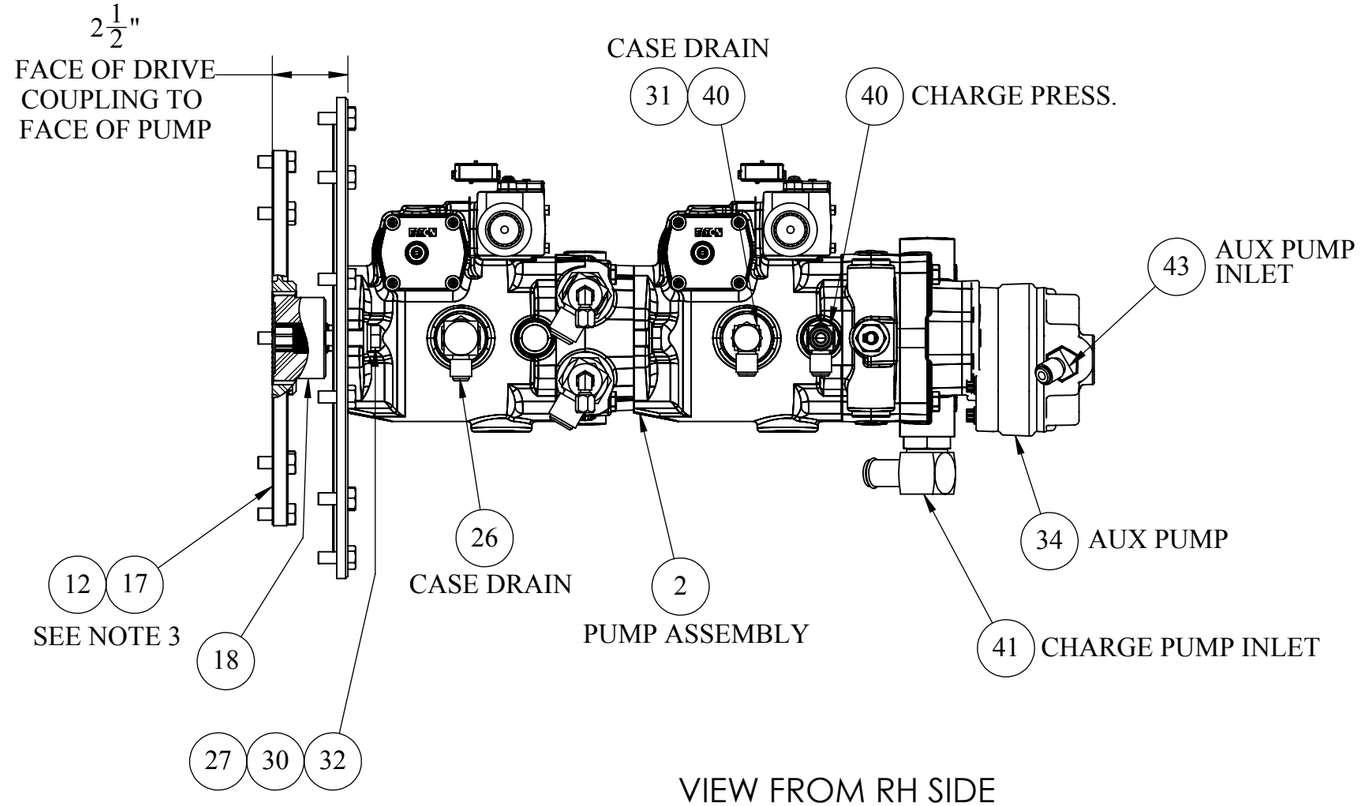
PROJECT No. | THIRD ANGLE PROJECTION | SIZE D | SCALE: 1:4 | DRAWING No.: 9299 | REV - | SHEET 1 OF 2

9299 D

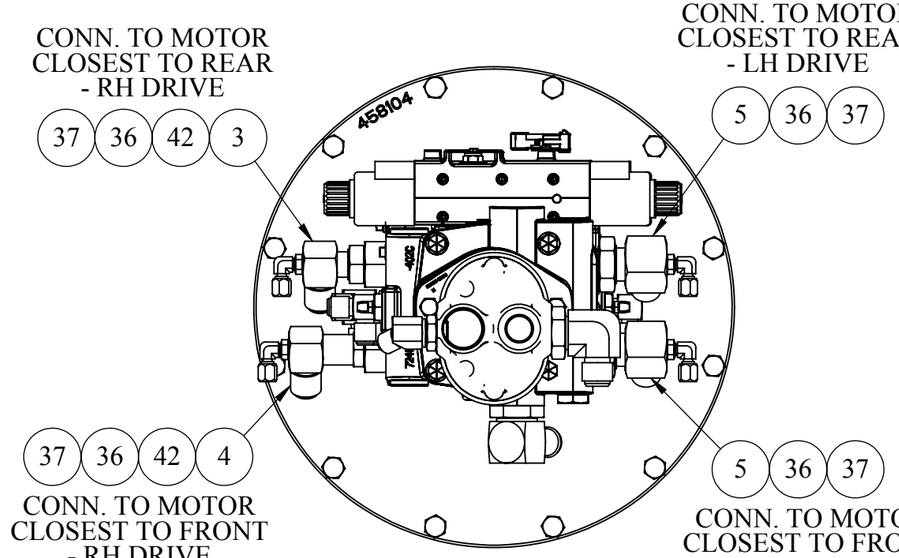
OPERATIONS	
1	ASYMISC
2	
3	
4	



VIEW FROM LH SIDE



VIEW FROM RH SIDE



LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/18/2014
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

TITLE: ASSEMBLY, POWERTRAIN

PROJECT No:

THIRD ANGLE PROJECTION

SIZE: B

SCALE: 1:4

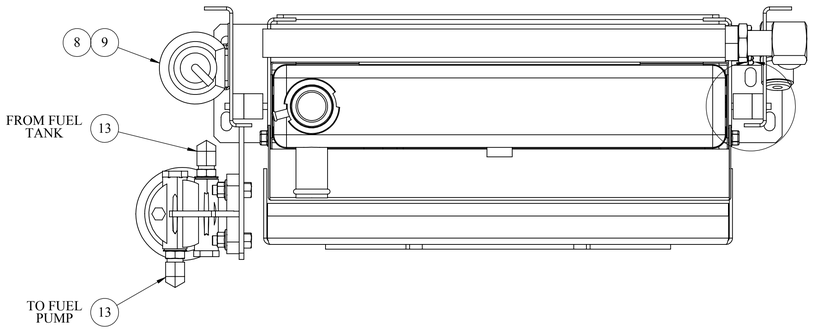
DRAWING No.: 9299

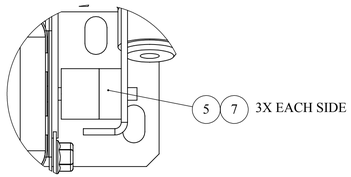
REV: -

SHEET 2 OF 2

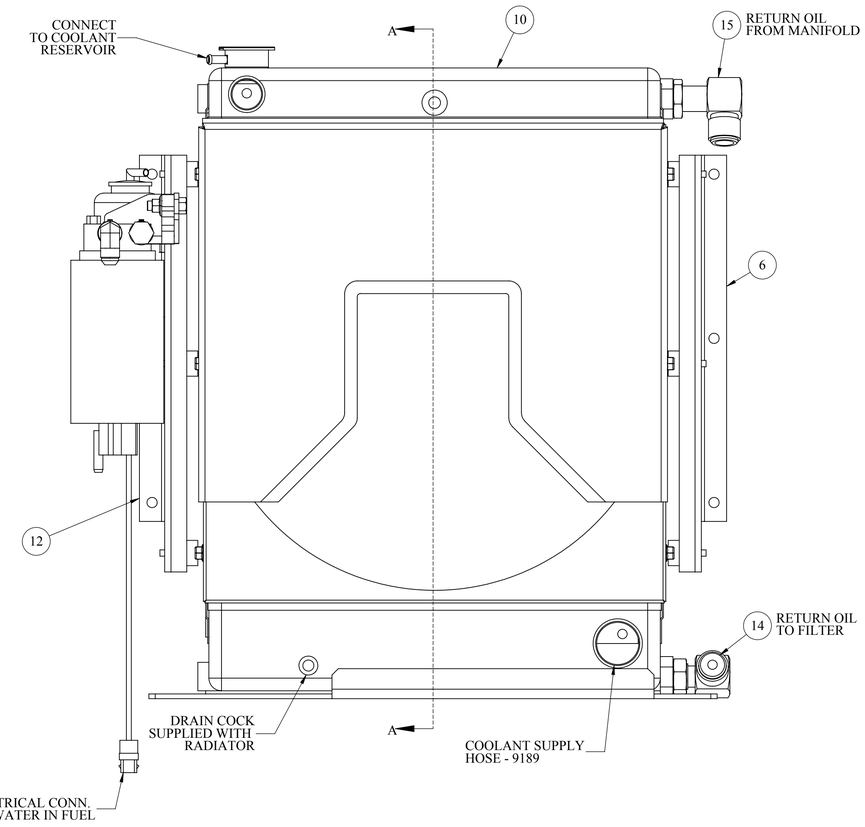
OPERATIONS	
1	ASYMISC
2	
3	
4	

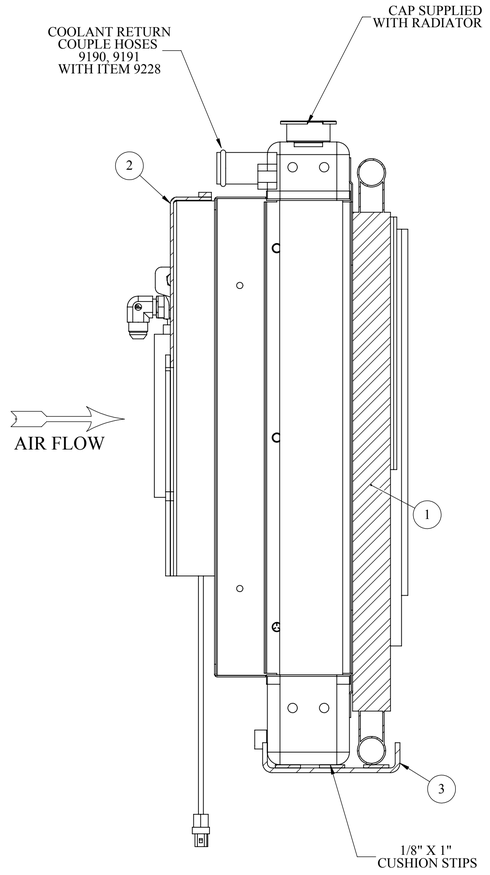
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	7738	COOLER, OIL, DH-249-2-1
2	1	8554	FAN GUARD
3	1	8562	RADIATOR & COOLER SUPPORT
4	2	8564	CLAMP, HYD. COOLER
5	6	8566	RADIATOR MOUNT SPACER
6	1	8567	RADIATOR MOUNT BRACKET, LH
7	6	8595	ISOLATOR, NEOPRENE RUBBER
8	1	8649	MOUNTING BRACKET, COOLANT RESERVOIR
9	1	8650	COOLANT RESERVOIR
10	1	9181	Radiator, RT-75A
11	1	9228	COUPLING, COOLANT RETURN HOSE
12	1	9297	WELDMENT, RADIATOR MOUNT BRACKET, RH
13	2	16420	ELBOW, #8 MJIC X M16X1.5 ORB
14	1	6080611	FITTING, 6801-16-12-NWO, MJIC X MORB, 90
15	1	8707	FITTING, ELBOW, #16MJIC X #12MORB, LONG



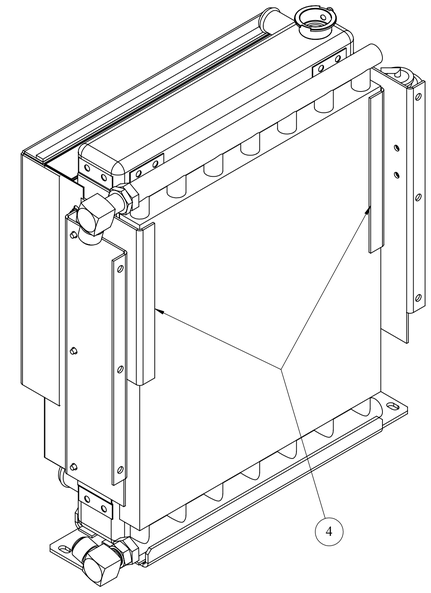


DETAIL B
SCALE 2 : 3





SECTION A-A



NOTES:

1. ROTATE FITTINGS ON OIL COOLER FOR HOSE CLEARANCES, AFTER INSTALLATION OF ASSEMBLY.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	09/16/14
CHECKED BY:	ELI KAUFMAN	12/8/2014
APPROVED BY:		

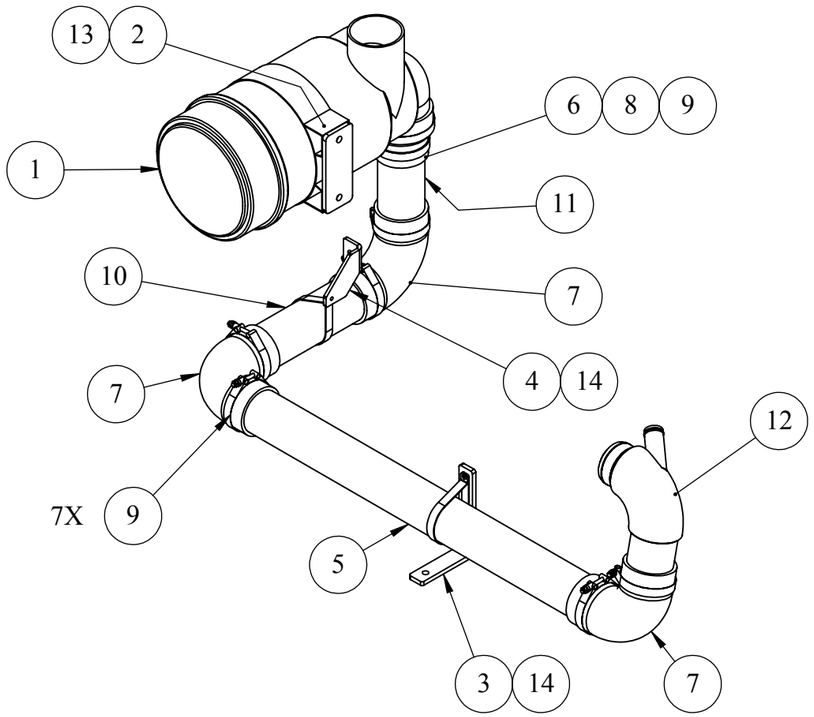
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

TITLE: ASSEMBLY, COOLING SYSTEM

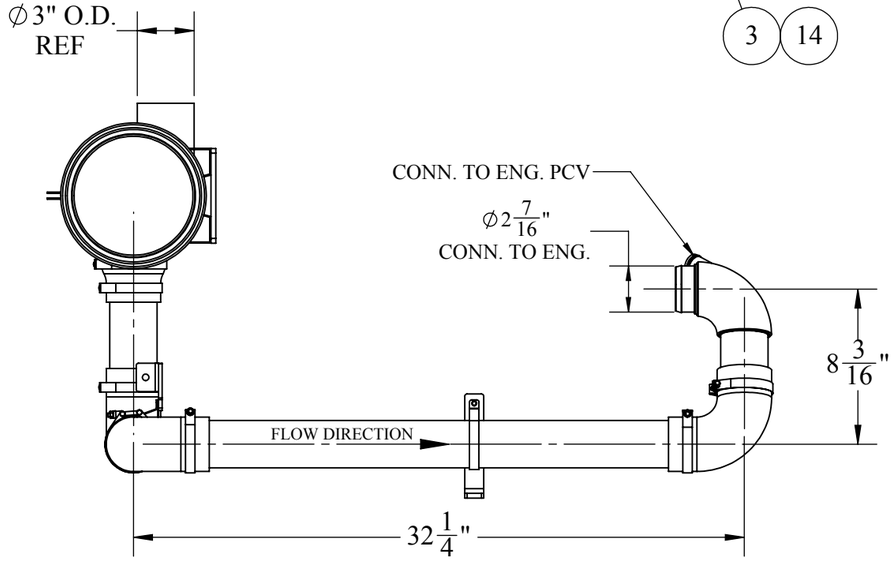
PROJECT No.		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	D	1:3	9293	A	1 OF 1

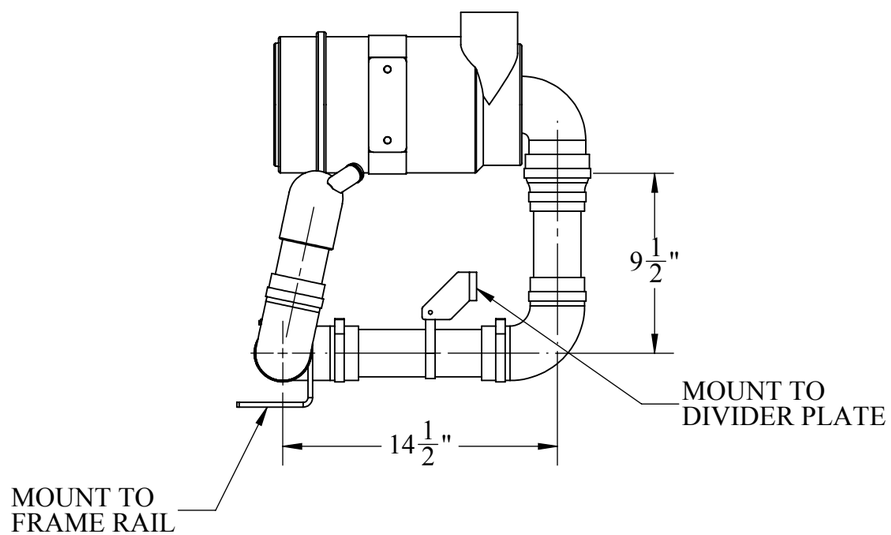
REV A | 9293 | D

OPERATIONS	
1	ASYMISC
2	
3	
4	



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
1	1	9167	FILTER HOUSING, DONALDSON	-
2	1	9168	MOUNTING BAND, FILTER HOUSING	
3	1	9199	INTAKE TUBE SUPPORT, REAR	MS
4	1	9200	INTAKE TUBE SUPPORT, FRONT	MS
5	1	9252	Tube, Intake, Leg 3	SS304
6	1	9253	ADAPTER, SLEEVE, 3" ID X 2-1/2" ID	-
7	3	9254	ELBOW, 2-1/2" ID, RUBBER	-
8	1	9255	T-BOLT CLAMP, 3.5" ID, SS	-
9	7	9256	T-BOLT CLAMP, 3" ID, SS	-
10	1	9258	Tube, Intake, Leg 2	SS304
11	1	9259	Tube, Intake, Leg 1	SS304
12	1	9262	ELBOW FITTING, INTAKE	
13	1	9325	SPACER, AIR CLEANER	MS
14	2	Loop Clamp	LOOP CLAMP, RUBBER CUSHIONED MCM# 3225T32	-





NOTES:

1. INTERIOR SURFACES OF INTAKE SYSTEM MUST BE CLEAN AND FREE OF LOOSE OBJECTS/PARTICLES.
2. DIMENIONS OF STRAIGHT TUBING RUNS ARE PROVIDED FOR REFERENCE ONLY.

REV.	DESCRIPTION	BY	DATE
	REVISION TABLE		

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	9/16/2014
CHECKED BY:		
APPROVED BY:		

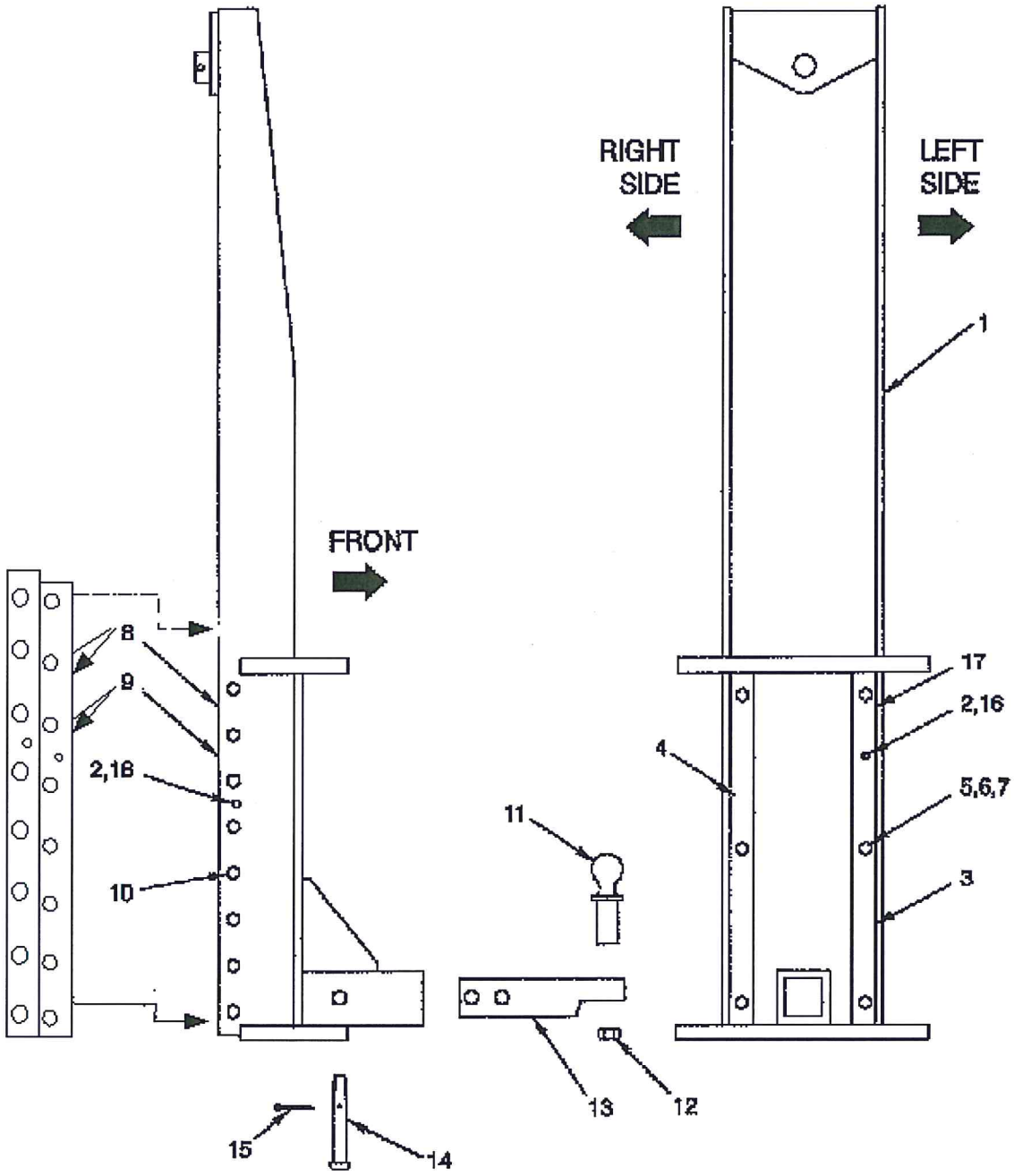
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

LAYTON SYSTEMS

TITLE: ASSEMBLY, INTAKE TUBING

PROJECT No:		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	B	1:8	9326	-	1 OF 1

Mast Assembly

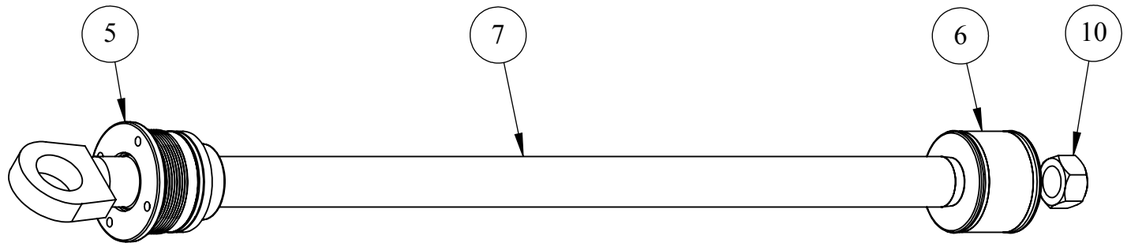


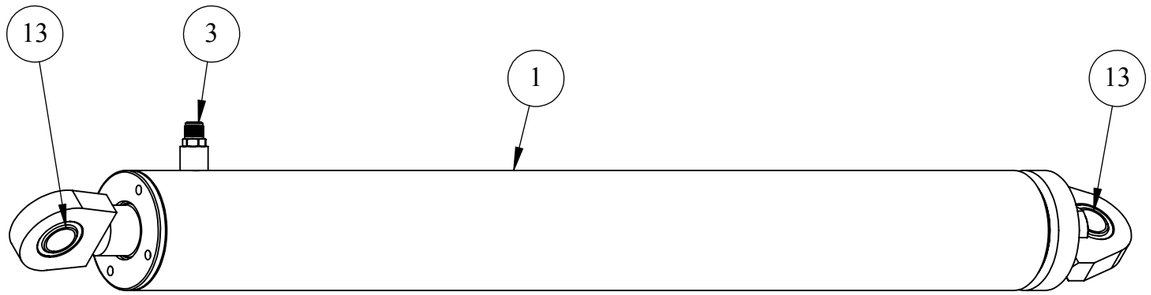
Mast Assembly

ITEM	NOTES	PART#	QTY	DESCRIPTION
		7572		MAST ASSEMBLY COMPLETE
1		7578	1	MAST
2		500176	4	LUBE FITTING
3		587027L	1	WEAR BAR
4		587027R	1	WEAR BAR
5		G13-508	6	BOLT, 1/2-13X2 FLHD
6		500058	6	LOCKWASHER, 1/2
7		607497	6	NUT, 1/2-13
8		587026L	1	GUIDE BAR
9		587026R	1	GUIDE BAR
10		587168	16	CAPSCREW, 5/8-11X1-1/2 GR8 HHCS
11		588051	1	BALL HITCH
12		587171	1	NUT, 1-3/8 NF
13		588152	1	HITCH
14		588151	1	PIN
15		588153	1	COTTER PIN
16		N10-012	4	O-RING, 01-012
17		7360	A/R	SHIM, MAST
18		400286	22	CAPSCREW
19		607054	1	CAPSCREW
20		500012	1	NUT
21		500056	1	WASHER

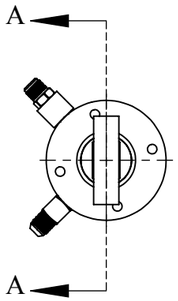
SEE GROUP 2 (HYDRAULIC COMPONENTS)
FOR MAST CYLINDER DETAIL

OP. CODE	OPERATIONS
501	ASSEMBLY & TEST
601	PAINT

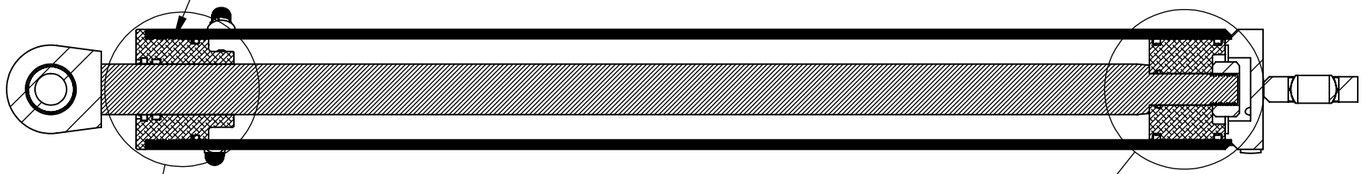




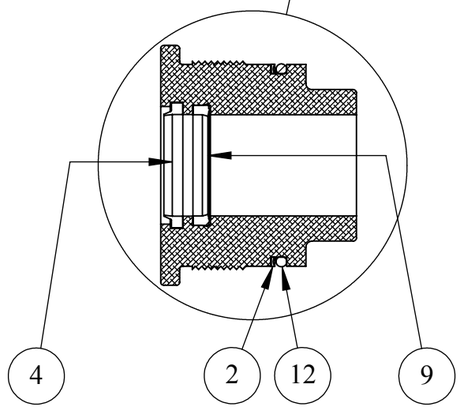
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
1	1	7016	CYLINDER TUBE WELDMENT	MS
2	1	7202	CONTOURED BACK-UP RING FOR O-RING 8-342 N90	NITRILE
3	1	550361	STRAIGHT MALE ADDAPTURE, 2404-08-06	ZINC PLATED
4	1	585323	2" DIA ROD WIPER PARKE D02000	POLY
5	1	587006	CYLINDER HEAD	AL
6	1	587007	MAST CYLINDE PISTON	AL
7	1	587095	CYLINDER ROD WELDMENT	MS
8	2	587110	SEAL, POLY-PAC 2500-3500	POLY
9	1	588104	SEAL, PARKER 18702000-312B	POLY
10	1	588121	NUT, 1-12" HEX PLAIN	MS
11	1	N10-218	O-RING 2-218	RUBBER
12	1	N10-342	O-RINGg 2-342	RUBBER
13	2	T21-1	BEARING, TORRINGTON 12SF20	STEEL

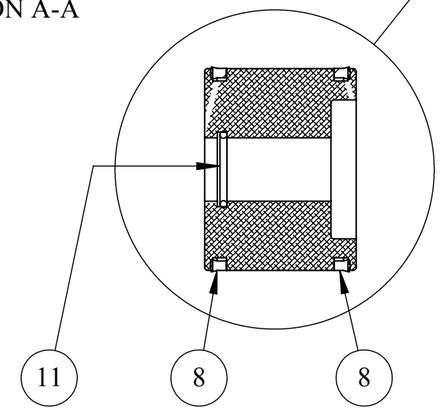


APPLY ANTISEIZE LUBRICANT TO CYLINDER HEAD



SECTION A-A





DE-BUR AND OR RADIUS ALL SHARP EDGES

ZONE	REV.	DESCRIPTION	BY	DATE

REVISION TABLE

LAYTON ORDER NUMBER: STD

672 MURLARK AVE NW
SALEM, OREGON 97304

PHONE: 503-585-4888
FAX:503-585-3374

LAYTON Manufacturing Co.

WELLIVER METALS ~ AB MCLAUCHLIN

	DATE	NAME	INITIALS
DRAWN:	9/28/2012	KHANH NGUYEN	
CHECKED:	***	***	
APPROVED:	***	***	

DEFAULT TOLERANCE

DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
XX.XX	± 0.01	FORMED ANGLES	±0.5°
XX.XXX	± 0.008	SURFACE FINISH	.

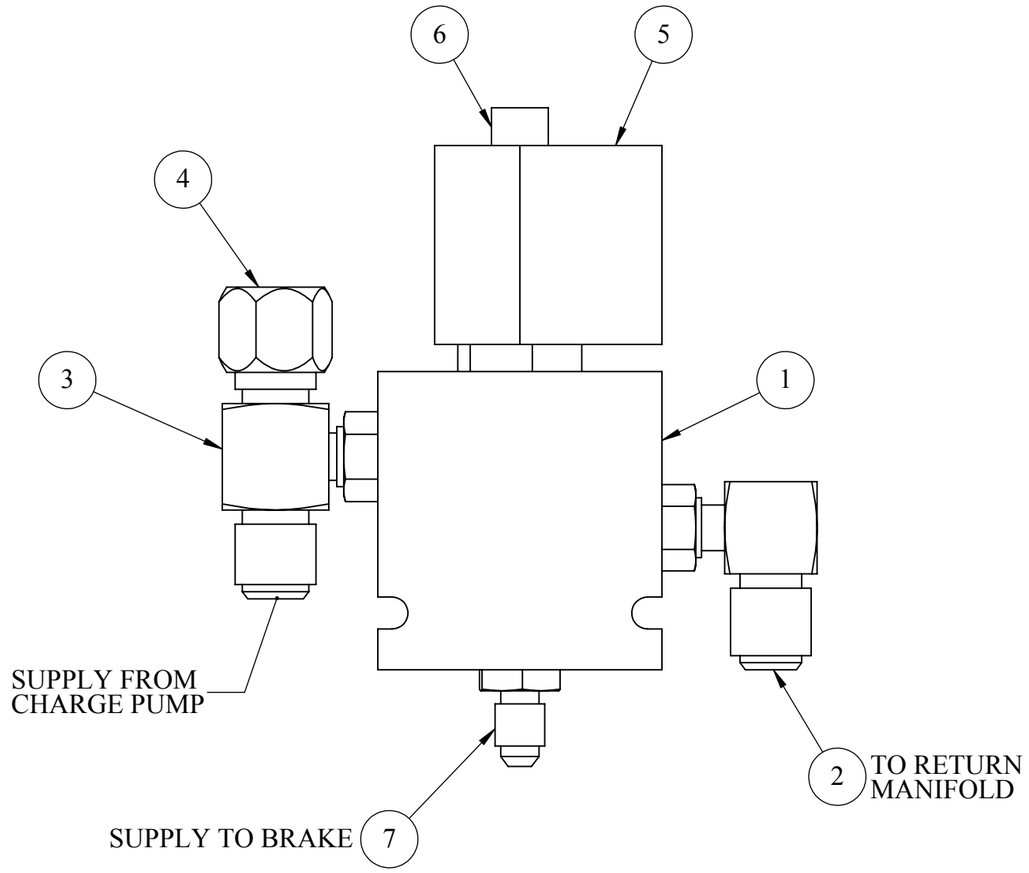
TITLE

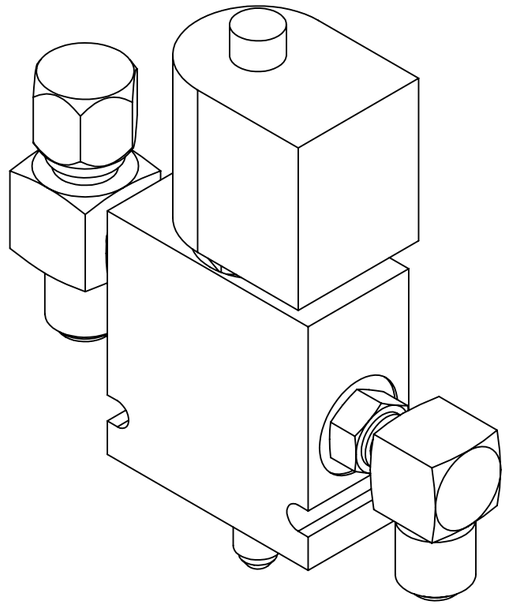
CYLINDER ASSEMBLY
REMOTE-TRAX
TC30-3

SIZE	SCALE:	DRAWING No.:	REV	SHEET
B	1:6	587096	0	1 OF 1

OPERATIONS	
1	ASYMISC
2	
3	
4	

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	9261	VALVE BODY, VICKERS #566162
2	1	15312	FITTING, ELBOW, 6801-08-06, MJIC X MORB
3	1	16423	FIT-MS 6803-08-08-06 JIC O-ring Tee
4	1	500701	FITTING, 304-C-08 JIC Cap Nut
5	1	550324	Solenoid, Coil only for Valve Delta #39610030
6	1	589007	Valve, Cart. DF-S3A-00 Delta 85002279
7	1	A19-71	FITTING, STRAIGHT, #6MORB X #4MJIC





NOTES:

1. FITTINGS MUST BE INSTALLED AND ANGLED WITH REGARD TO HOSE SLACK.
2. SEE SCHEMATIC RT75-003 FOR HYDRAULIC CIRCUIT LAYOUT.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/20/14
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

LAYTON SYSTEMS

TITLE: ASSEMBLY, BRAKE MANIFOLD

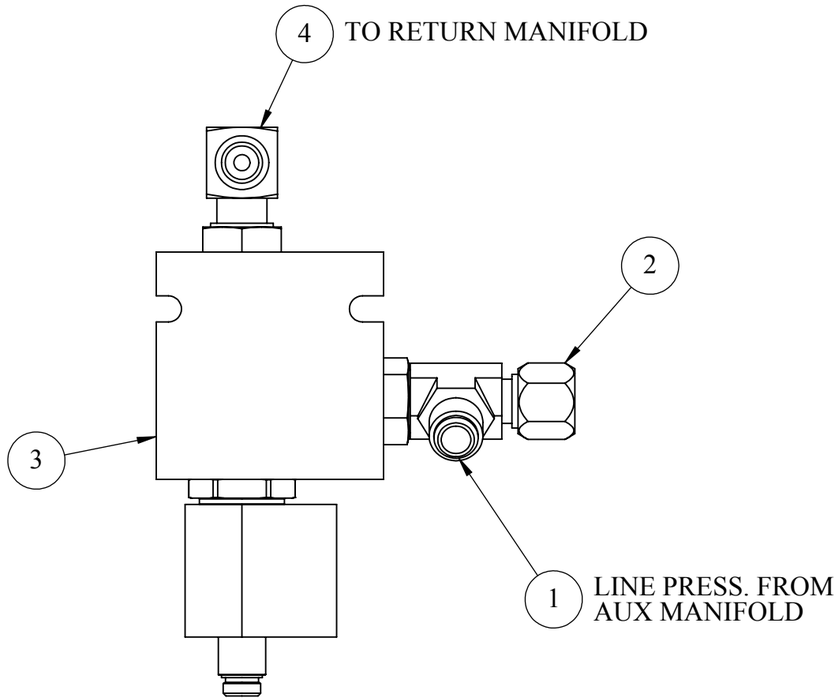
PROJECT No:

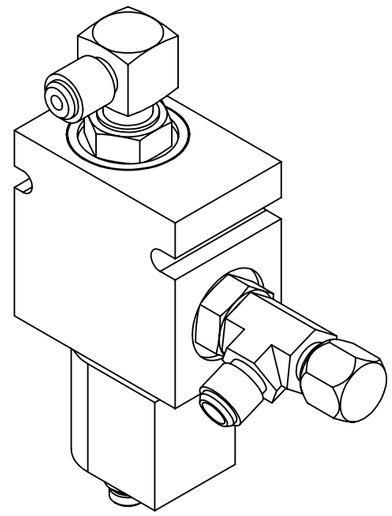
THIRD ANGLE PROJECTION

SIZE	SCALE:	DRAWING No.:	REV	SHEET
B	3:4	9271	0	1 OF 1

OPERATIONS	
1	ASYMISC
2	
3	
4	

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	16378	RUN TEE 08MJ-10MAORB-08MJ
2	1	500701	FITTING, 304-C-08 JIC Cap Nut
3	1	588031	ASSEMBLY, DUMP VALVE
4	1	5601075	FITTING, 6801-8-10-NWO, MORB X MJIC, 90





NOTES:

1. FITTINGS MUST BE INSTALLED AND ANGLED WITH REGARD TO HOSE SLACK.
2. SEE SCHEMATIC RT75-003 FOR HYDRAULIC CIRCUIT LAYOUT.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/20/14
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No:

THIRD ANGLE PROJECTION

SIZE: B

SCALE: 1:2

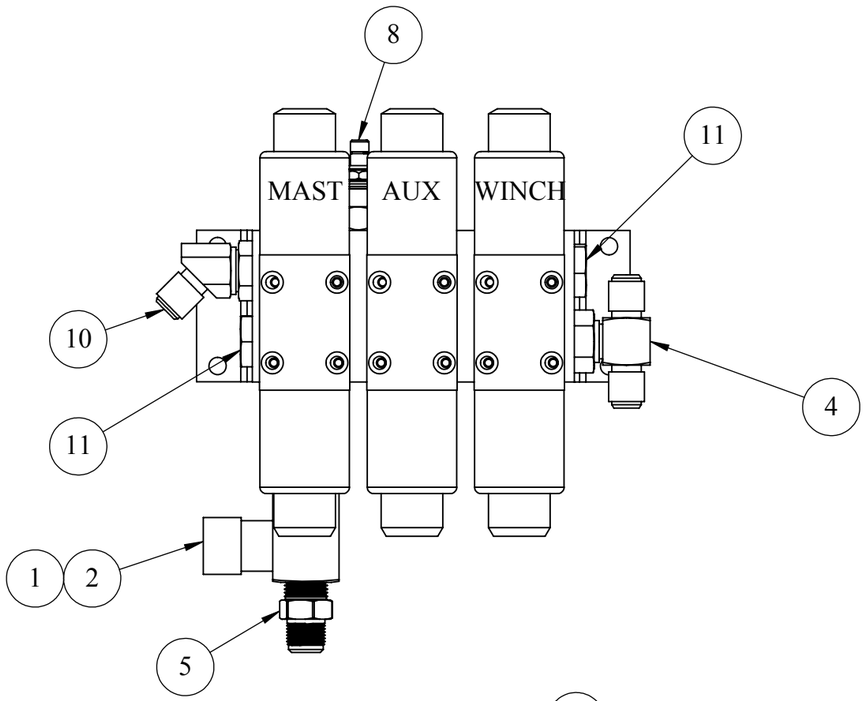
DRAWING No.: 9224

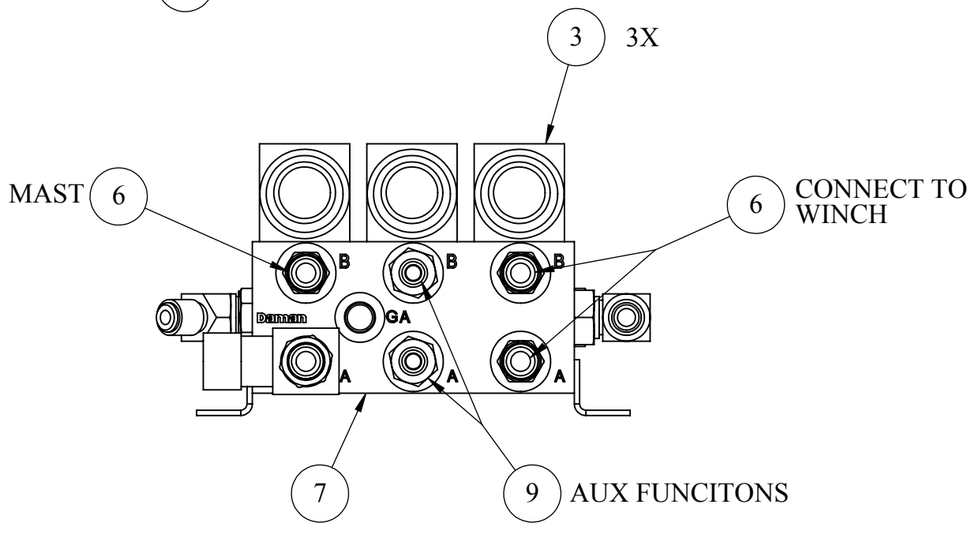
REV: 0

SHEET 1 OF 1

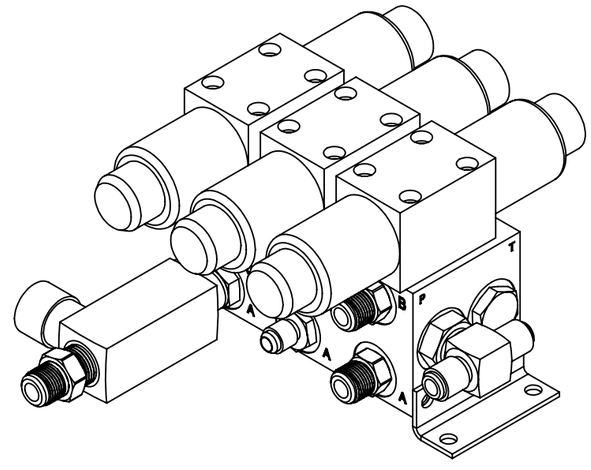
TITLE: ASSEMBLY, DUMP VALVE MANIFOLD

OPERATIONS	
1	ASYMISC
2	
3	
4	





ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	7346	FITTING, STRAIGHT, #8MORB X 1/2"NPT
2	1	8243	VALVE, FLOW CONTROL, 1/2" NPT
3	3	8436	SOLENOID VALVE, RPE3-063Z11/01200
4	1	12542	FITTING, BRANCH TEE, #8MJIC X #8MJIC X #10MORB
5	1	400669	STRAIGHT MALE ADDAPTURE, 2404-08-08
6	3	400885	1/2" JIC X #8 SAE/ORB
7	1	587091	MANIFOLD, 3 STATION, D03 VALVE SIZE
8	1	587136	VALVE, CARTRIDGE, RELIEF - SUN #RPEC-LAN
9	2	5601061	FITTING, STRAIGHT, #6MORB X #8MORB
10	1	A11-56	FITTING, ELBOW, 45 DEG, #8MJIC X #10MORB
11	2	A78-10	FITTING, PLUG, #10MORB



NOTES:

1. FITTINGS MUST BE INSTALLED AND ANGLED WITH REGARD TO HOSE SLACK.
2. GAGE PORT PLUG AND MOUNTING BRACKETS ARE SUPPLIED WITH MANIFOLD.
3. SEE SCHEMATIC RT75-003 FOR HYDRAULIC CIRCUIT LAYOUT.

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/20/14
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No:

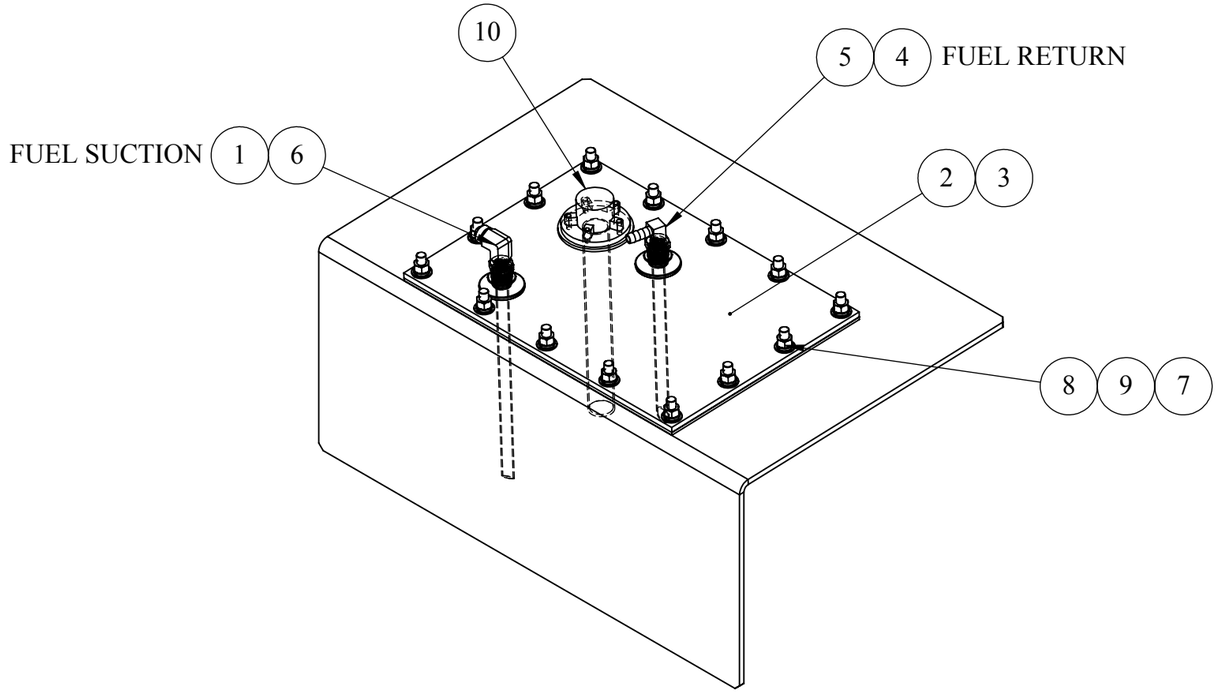
THIRD ANGLE PROJECTION

SIZE: B | SCALE: 1:3 | DRAWING No.: 9222 | REV: 0 | SHEET 1 OF 1

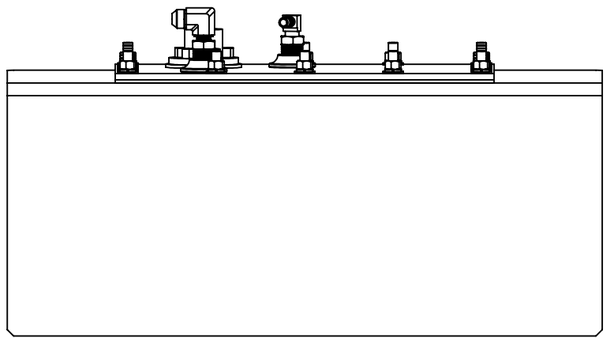
LAYTON SYSTEMS

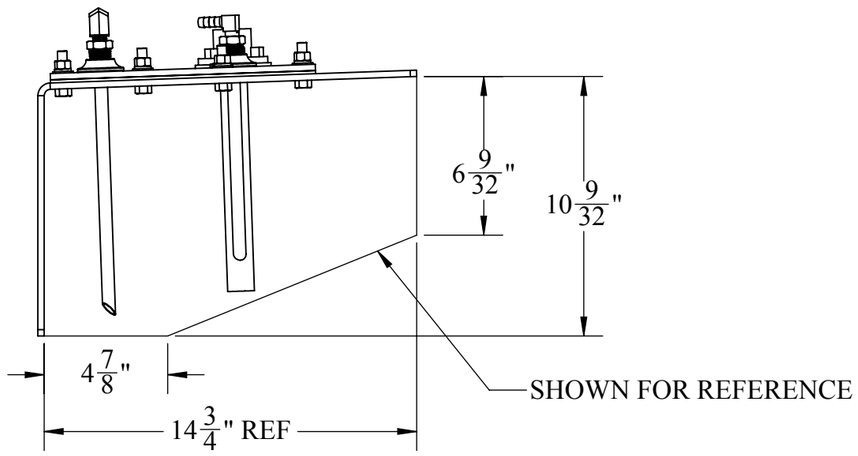
TITLE: ASSEMBLY, AUX MANIFOLD

OPERATIONS	
1	ASYMISC
2	
3	
4	



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	8507	WELDMENT, SUCTION TUBE, FUEL
2	1	8510	FUEL TANK CLEANOUT COVER WMNT.
3	1	8600	GASKET, FUEL TANK LID
4	1	8614	WELDMENT, RETURN TUBE, FUEL
5	1	8749	Fitting, Brass MPT-90-6-4
6	1	13455	FITTING, #8MJIC X 1/4"MNPT - 2501-08-04
7	14	500004	3/8" SCREW SIZE TYPE A SAE FLAT WASHER
8	14	500012	NUT, 3/8"-16 HEX
9	14	500056	WS-MS-LK 3/8" GR 5
10	1	588054	SENDING UNIT, FUEL LEVEL





NOTES:

1. USE LOCTITE THREAD SEALANT 565 ON ALL PIPE JOINTS.
2. TANK VOLUME AT FULL LEVEL - 13.0 US GAL

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No:

THIRD ANGLE PROJECTION

SIZE: B

SCALE: 1:6

DRAWING No.: 9215

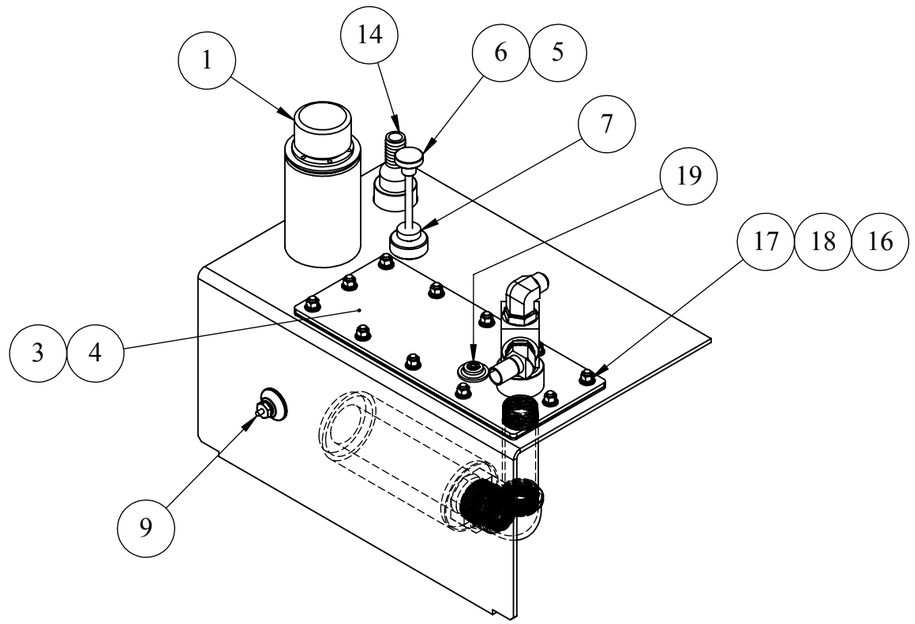
REV: 0

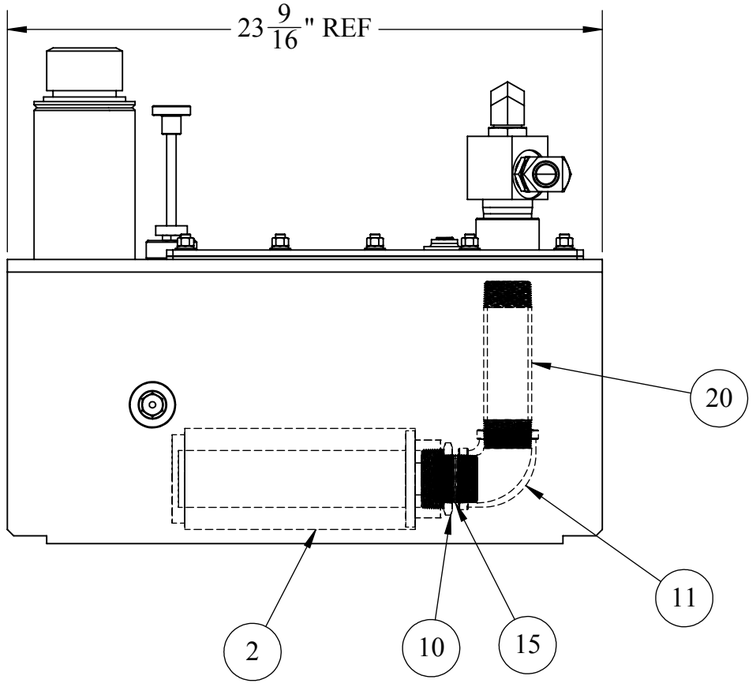
SHEET 1 OF 1

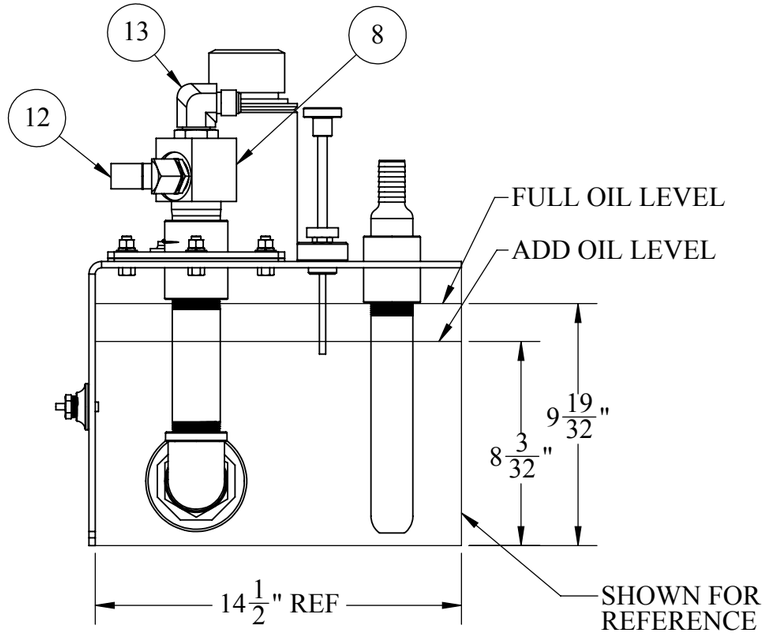
LAYTON SYSTEMS

TITLE: ASSEMBLY, FUEL TANK

OPERATIONS	
1	ASYMISC
2	
3	
4	







ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	7032	Breather, Filler Kit HC-120-L
2	1	7033	FILTER, SUCTION, HA-FS-50
3	1	7536	HYDRAULIC RESERVOIR COVER GASKET
4	1	7545	HYDRAULIC COVER
5	1	8366	DIPSTICK ADAPTER
6	1	8460	ASSEMBLY, DIPSTICK
7	1	8593	Gromment,Rubber 1185
8	1	8724	SUCTION MANIFOLD
9	1	9291	Sender, Temperature, 250°F VDO #323-419
10	1	12535	Pi bushing 2"Ext. x 1 1/2"Int
11	1	12536	Pipe,Elbow 90 Deg 1-1/2 Sch 40
12	1	12552	Fitting, 4603-16-16, MORB X HOSE
13	1	6080771	FITTING, ELBOW, #12MJIC X #16MORB, CAST
14	1	12560	FITTING, KING NIPPLE, 1" HOSE X 1-1/4" NPT
15	1	12563	Pipe Nip 1-1/2 Sch 40 Close
16	12	500004	3/8" SCREW SIZE TYPE A SAE FLAT WASHER
17	12	500012	NUT, 3/8"-16 HEX
18	12	500056	WS-MS-LK 3/8" GR 5
19	1	587178	Pipe Plug 3/8 Allen
20	1	-	Nipple, 1-1/2" x 6-1/2"

NOTES:

1. USE LOCTITE THREAD SEALANT 565 ON ALL PIPE JOINTS.
2. TANK VOLUME AT FULL LEVEL - 14.2 US GAL

REV.	DESCRIPTION	BY	DATE
	REVISION TABLE		

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	11/22/2014
CHECKED BY:		
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

PROJECT No:

THIRD ANGLE PROJECTION

SIZE: B

SCALE: 1:6

DRAWING No.: 9221

REV: -

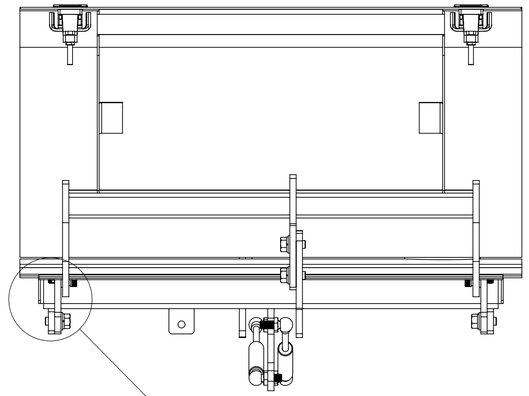
SHEET 1 OF 1

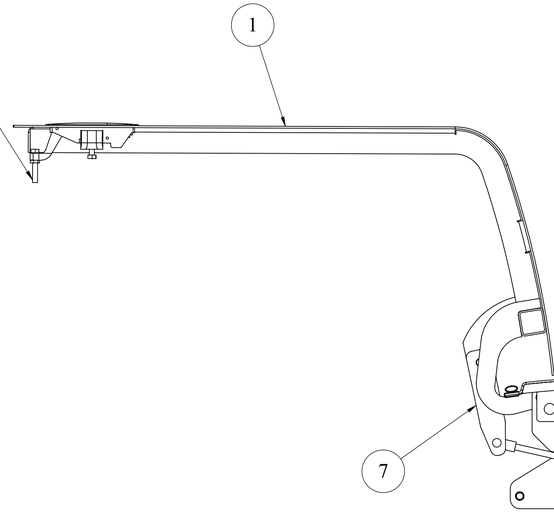
TITLE: ASSEMBLY, HYDRAULIC TANK

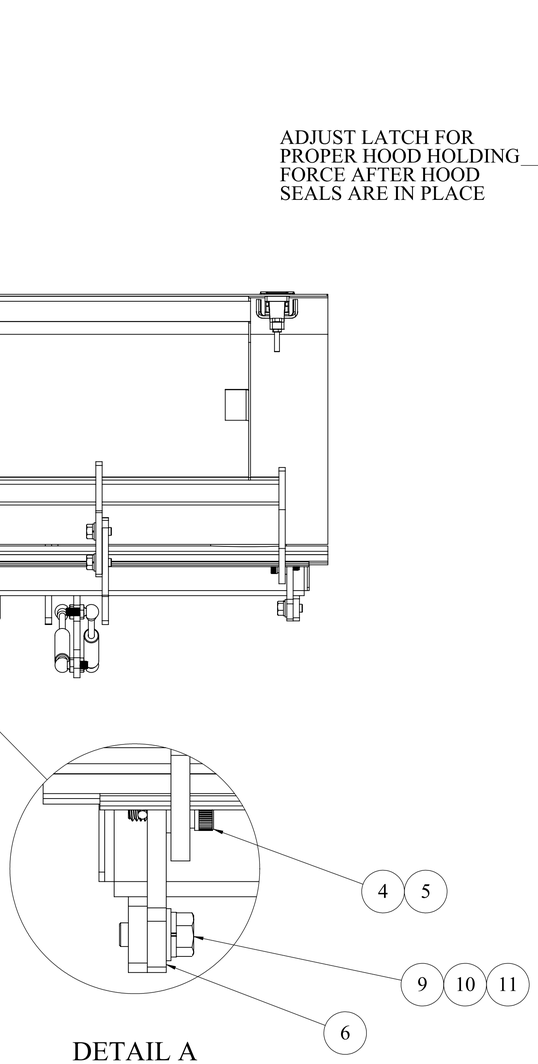
OPERATIONS	
1	AsyMisc
2	
3	
4	

ITEM NO.	Default/ QTY.	PART NUMBER	DESCRIPTION	MATERIAL
1	2	9214	HOOD, RH, FRONT	
2	1	9216	HOOD CENTER, FRONT	
3	2	9243	GAS SPRING, 80LB, MCM# 4138T538	
4	4	9244	SHOULDER SCREW, 3/8" DIA X 3/8 LG, 5/16 UNC. MCM# 91264A576	
5	4	9245	NYLON BEARING, 3/8" ID X 1/2" OD, MCM #6294K438	MDS-FILLED NYLON
6	4	9269	HINGE PLATE, HOODS	MS
7	2	9279	ADJUSTMENT ARM, HOOD	MS
8	4	9280	LATCH, PANEL MOUNT	-
9	12	335	5/16-18 UNC x 3/4" LG. HEX CAP SCREW,	MS
10	12	12996	5/16" SCREW SIZE TYPE A SAE FLAT WASHER, GR 5	MS
11	12	500447	WS-MS-LK 5/16"	MS

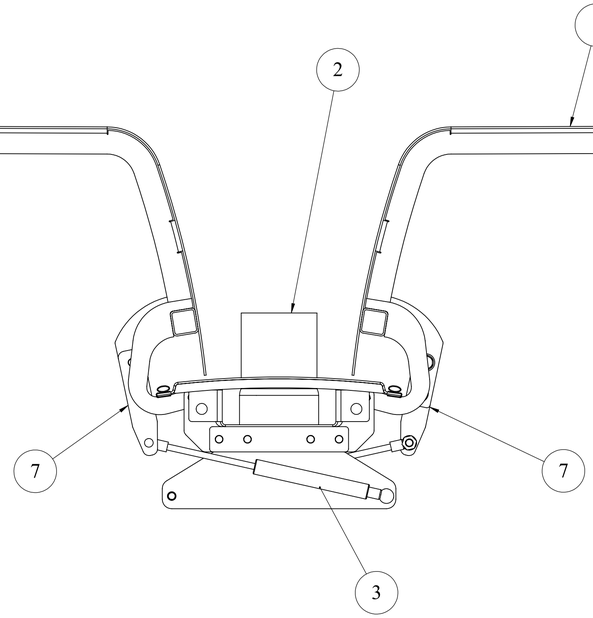
ADJUST LATCH FOR PROPER HOOD HOLDING FORCE AFTER HOOD SEALS ARE IN PLACE







DETAIL A
SCALE 1 : 1



NOTES:

1) DE-BUR AND OR RADIUS ALL SHARP EDGES

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	8/23/2014
CHECKED BY:	ELI KAUFMAN	8/23/2014
APPROVED BY:		

DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

LAYTON SYSTEMS

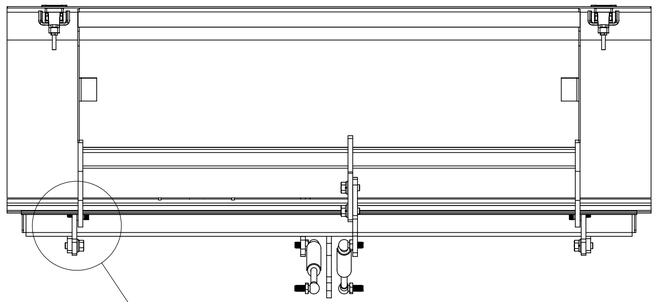
TITLE: ASSEMBLY, FRONT HOODS

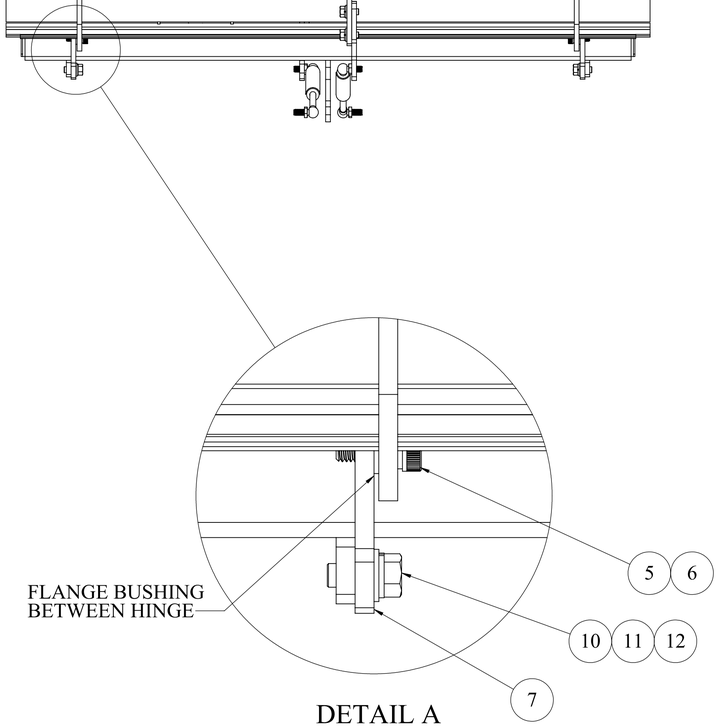
PROJECT No.		SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114	THIRD ANGLE PROJECTION	D	1:3	9268	A	1 OF 1

REV A
D 9268

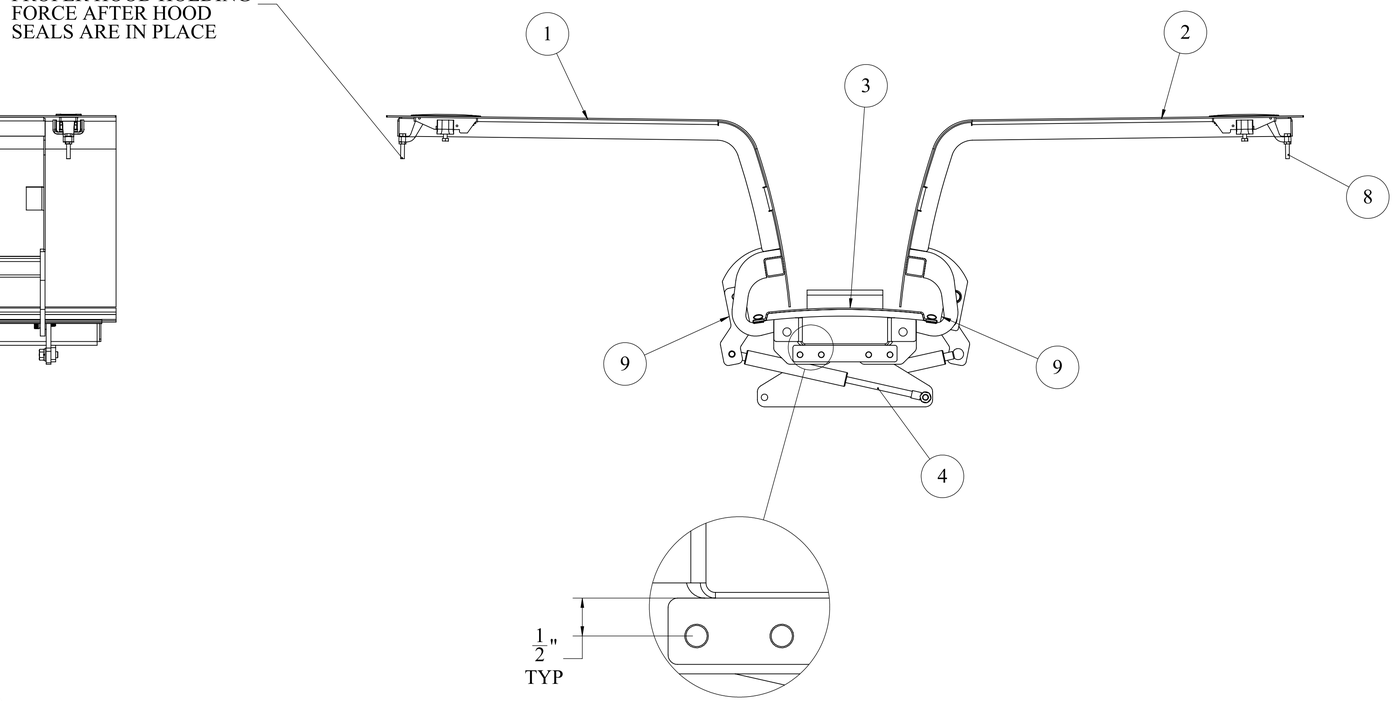
OPERATIONS	
1	AsyMisc
2	
3	
4	

ITEM NO.	Default/ QTY.	PART NUMBER	DESCRIPTION	MATERIAL
1	1	9217	HOOD, RH, REAR	
2	1	9218	HOOD, LH, REAR	
3	1	9219	HOOD CENTER, REAR	MS
4	2	9242	GAS SPRING, 120LB, BANSBACH# D3D3F40-90-266/534N	
5	4	9244	SHOULDER SCREW, 3/8" DIA X 3/8 LG, 5/16 UNC, MCM# 91264A576	
6	4	9245	NYLON BEARING, 3/8" ID X 1/2" OD, MCM #6294K438	MDS-FILLED NYLON
7	4	9269	HINGE PLATE, HOODS	MS
8	4	9280	LATCH, PANEL MOUNT	-
9	2	9327	ADJUSTMENT ARM, LONG, HOOD	MS
10	12	335	5/16-18 UNC x 3/4" LG. HEX CAP SCREW,	MS
11	12	12996	5/16" SCREW SIZE TYPE A SAE FLAT WASHER, GR 5	MS
12	12	500447	WS-MS-LK 5/16"	MS





DETAIL A
SCALE 1 : 1



DETAIL B
SCALE 1 : 1

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	8/23/2014
CHECKED BY:	ELI KAUFMAN	10/20/2014
APPROVED BY:		

DEFAULT TOLERANCES

DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
XX.XX	± 0.01	FORMED ANGLES	± 0.5°
XX.XXX	± 0.008	SURFACE FINISH	-

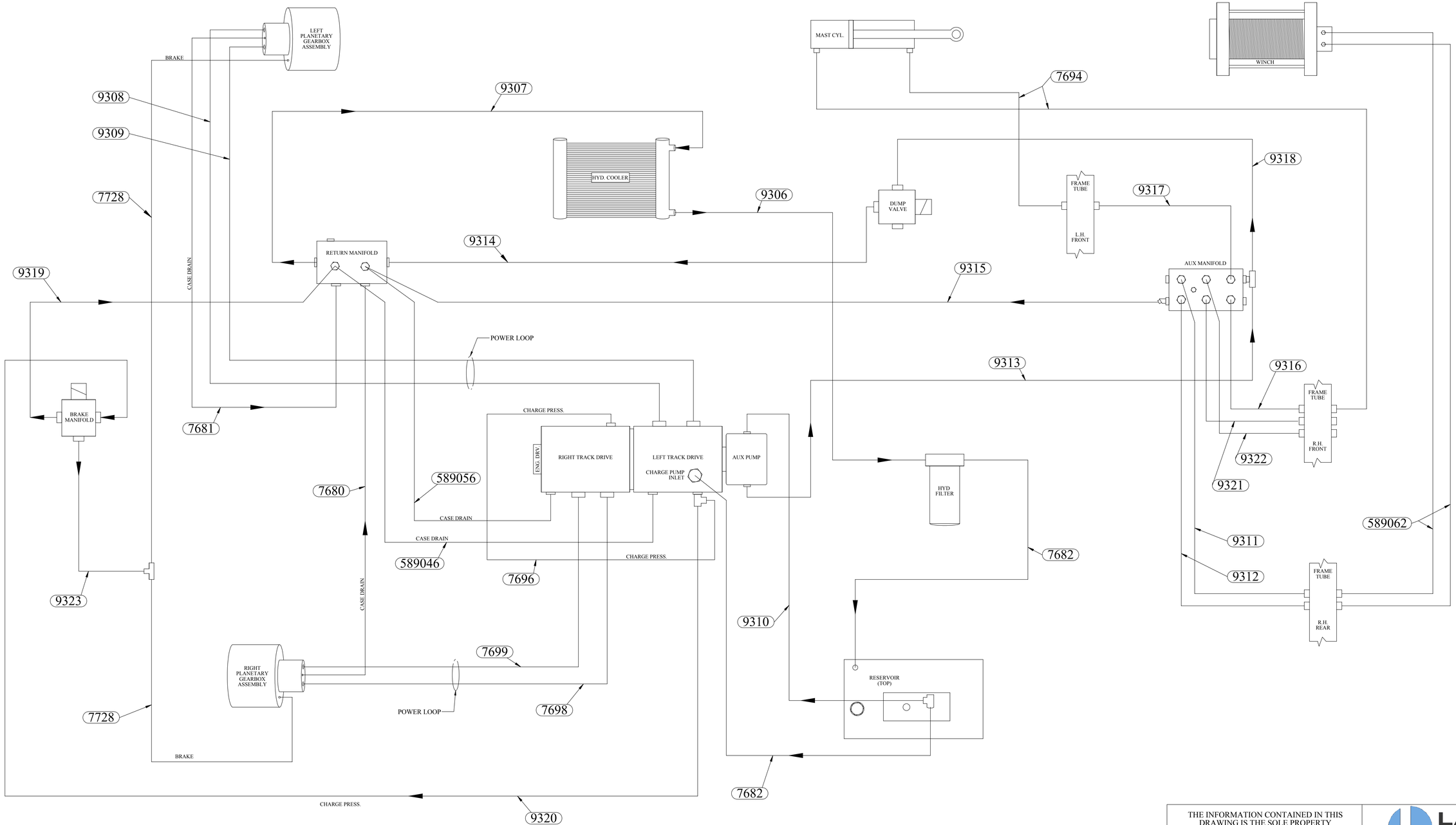
TITLE: ASSEMBLY, REAR HOODS

PROJECT No.	THIRD ANGLE PROJECTION	SIZE	SCALE:	DRAWING No.:	REV	SHEET
271114		D	1:4	9267	A	1 OF 1

REV.	DESCRIPTION	BY	DATE

REVISION TABLE

REV A
9267
D



REV.	DESCRIPTION	BY	DATE

REVISION TABLE

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	9/5/2014
CHECKED BY:		09/04/14
APPROVED BY:		

DEFAULT TOLERANCES

DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
XX.XX	± 0.01	FORMED ANGLES	± 0.5°
XX.XXX	± 0.008	SURFACE FINISH	-

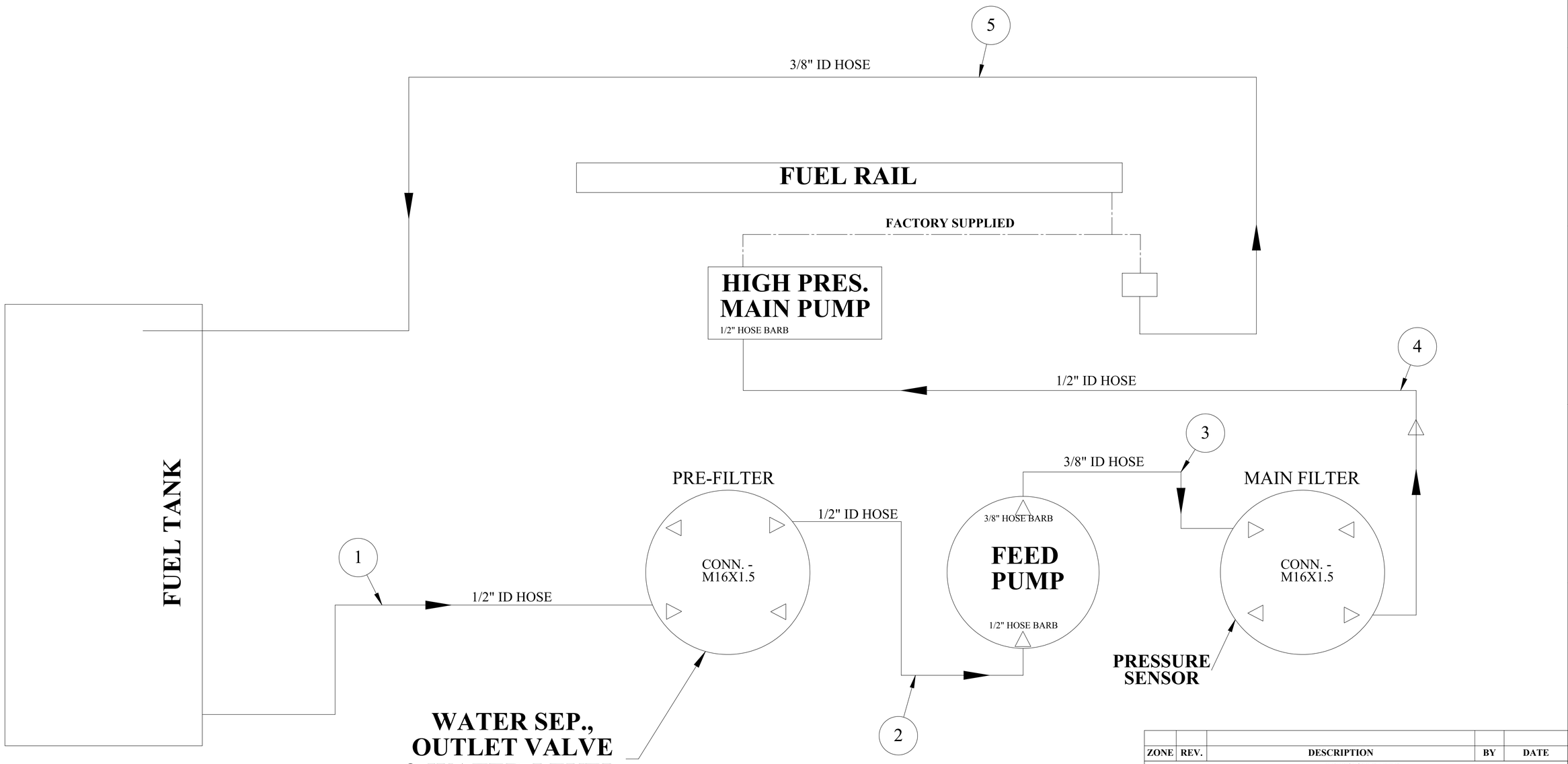
TITLE

HYDRAULIC SCHEMATIC
RT-75A

PROJECT No.	THIRD ANGLE PROJECTION	SIZE	SCALE:	DRAWING No.:	REV	SHEET
		D	1:4	RT75-003	0	1 OF 1

RT75-003 D 0

ITEM	PART NUMBER	DESCRIPTION
1	9285	HOSE ASSEMBLY, REMOTE TRAX, FUEL TANK TO PRE-FILTER
2	9286	HOSE ASSEMBLY, REMOTE TRAX, PRE-FILTER TO FUEL PUMP
3	9287	HOSE ASSEMBLY, REMOTE TRAX, FUEL PUMP TO MAIN FILTER
4	9288	HOSE ASSEMBLY, REMOTE TRAX, MAIN FILTER TO ENGINE FUEL PUMP
5	9289	HOSE ASSEMBLY, REMOTE TRAX, FUEL TANK RETURN



3/8" ID HOSE - PARKER 39706 (P/N 7422)
1/2" ID HOSE - PARKER 39708 (P/N 9284)

ZONE	REV.	DESCRIPTION	BY	DATE
		REVISION TABLE		

LAYTON ORDER NUMBER:

672 MURLARK AVE NW
SALEM, OREGON 97304

PHONE: 503-585-4888
FAX: 503-585-3374

LAYTON SYSTEMS
Food Handling & Processing Solutions

	DATE	NAME	INITIALS
DRAWN:	9/16/2014	Eli Kaufman	
CHECKED:			
APPROVED:			

DEFAULT TOLERANCE

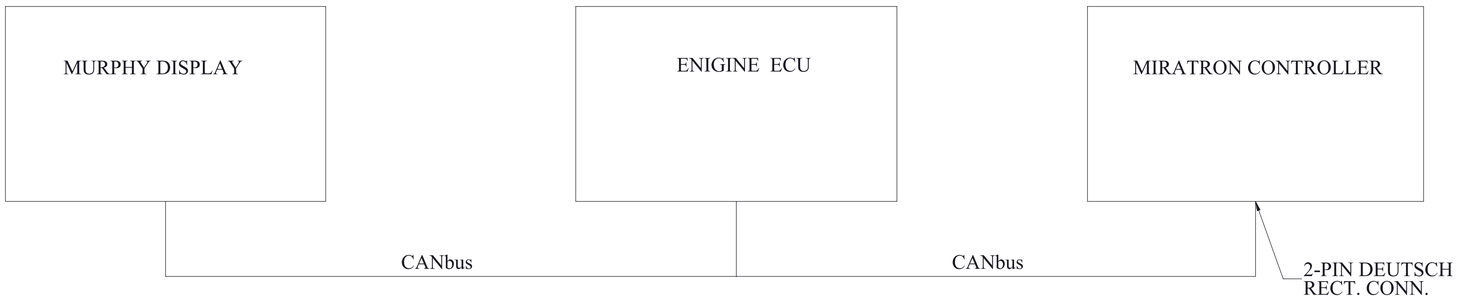
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	SIZE
XX.XX	± 0.01	FORMED ANGLES	±0.5°	D
XX.XXX	± 0.009	SURFACE FINISH	-	

TITLE
RT75-A FUEL SYSTEM LAYOUT

SCALE: 1:4 | DRAWING No.: RT75-A-001-01 | REV: - | SHEET 1 OF 1

REV - | D | RT75-A-001-01

INSTRUMENT OVERVIEW



WIRED BY LAYTON

WIRED BY LAYTON

1. GLOW PLUGS
2. WATER IN FUEL
3. COOLANT LEVEL
4. FUEL PUMP
5. ALTERNATOR
6. E-STOP
7. CAN -bus

WIRED BY LAYTON

1. RH FWD/REV
2. LH FWD/REV
3. BEEPER
4. AUX VALVE
5. WINCH VALVE
6. MAST VALVE
7. DUMP VALVE
8. BRAKE
9. FUEL LEVEL
10. HYD. TEMP

NOTES:

1. THIS SHEET DISPLAYS THE INSTRUMENTS AND THE COMPONENTS THAT INTERACT WITH EACH DEVICE.

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	7/16/14
CHECKED BY:		
APPROVED BY:		

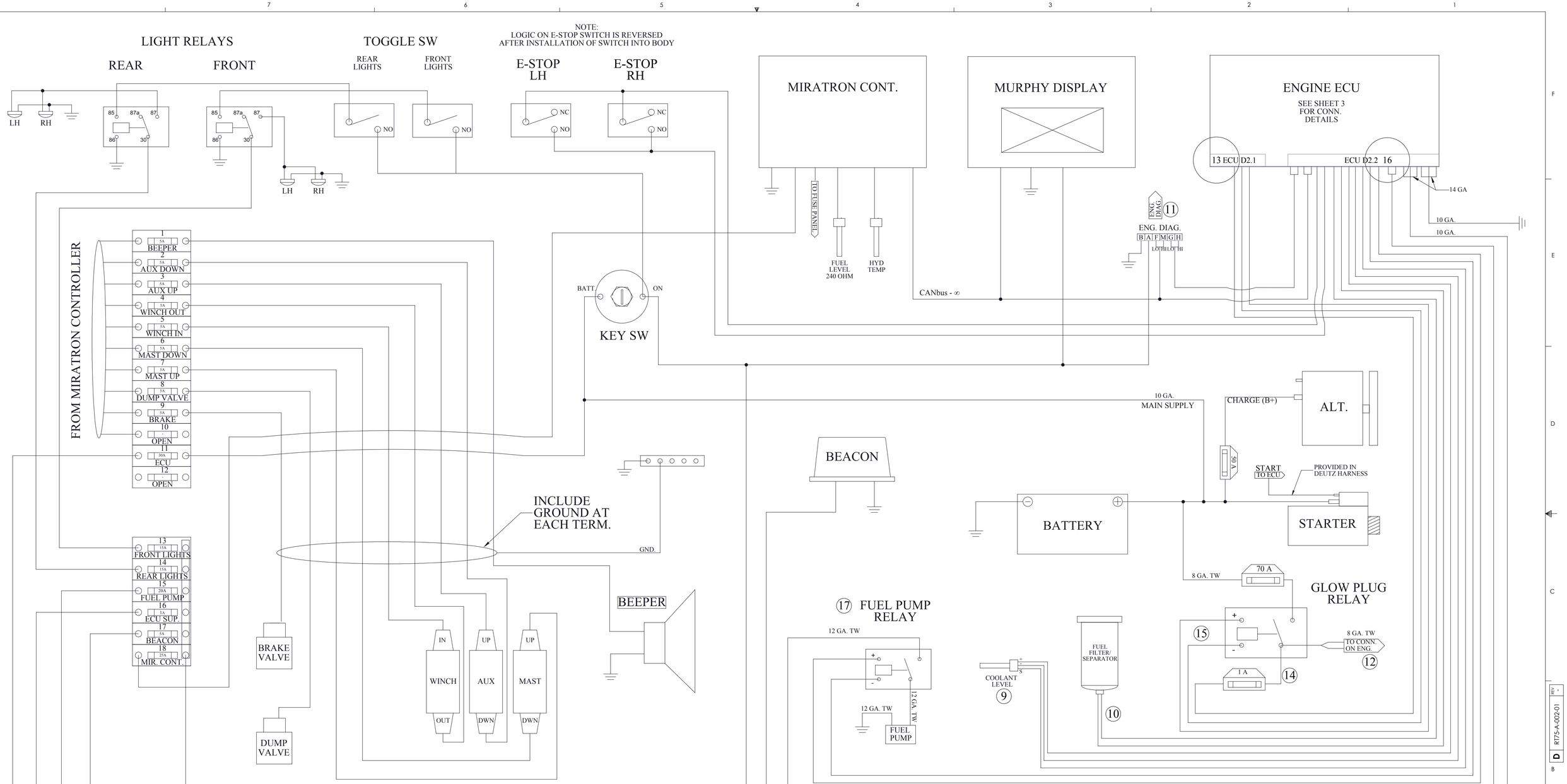
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

LAYTON SYSTEMS

TITLE: RT75 ELECTRICAL

PROJECT No.	THIRD ANGLE PROJECTION	SIZE	SCALE:	DRAWING No.:	REV	SHEET
		D	1:4	RT75-A-002-01	-	1 OF 4

REV - | D | RT75-A-002-01



NOTES:

1. REFER TO INSTRUMENT OVERVIEW ON SHEET 1 FOR GENERAL LAYOUT OF CONTROLS AND INSTRUMENTS.
2. ITEMS WITH BUBBLES ARE REFERENCED AT EACH NODE OR CONNECITON IN THE HARNESS.
3. ALL WIRE TO BE 18 GA. EXCEPT WHERE NOTED.
4. ALL TWISTED PAIR WIRES, APPROXIMATELY ONE TWIST PER INCH.

LAYTON SYSTEMS

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	7/16/14
CHECKED BY:		
APPROVED BY:		

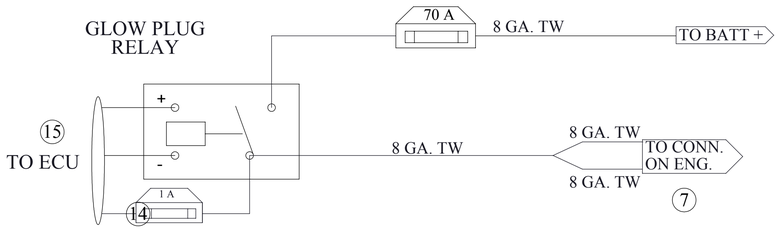
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

TITLE: RT75 ELECTRICAL

PROJECT No. | THIRD ANGLE PROJECTION | SIZE D | SCALE: 1:4 | DRAWING No.: RT75-A-002-01 | REV - | SHEET 2 OF 4

REV * | D | RT75-A-002-01

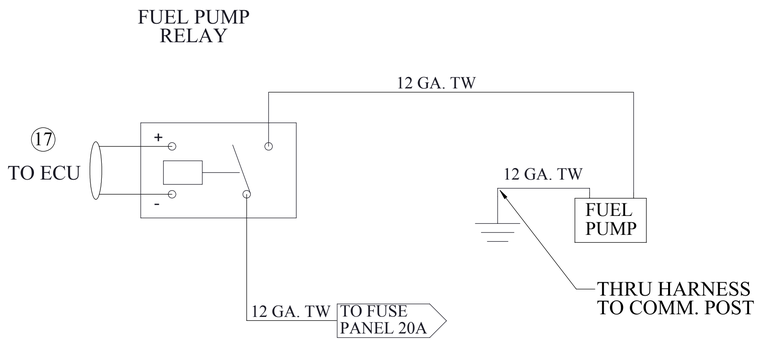
GLOW PLUG RELAY TO ENGINE HARNESS



FUEL PRESSURE SENDER EXTENSION (REFERENCE)

NOTE:
CURRENT MODEL DOES'T REQUIRE JUMPER. EXISTING LEAD IS LONG ENOUGH TO CONNECT DIRECTLY TO SENDING UNIT.

FUEL PUMP RELAY TO FUEL PUMP



NOTES:

1. SEE CONNECTOR DETAILS ON SHEET 3 FOR INDIVIDUAL COMPONENTS AND PART NUMBERS FOR BUILDING CONNECTORS. CONNECTOR #'S CORRESPOND TO BUBBLE NUMBERS LABELED AT EACH CONNECTION.
2. USE 18 GA. WIRE EXCEPT WHERE SPECIFIED.

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	7/16/14
CHECKED BY:		
APPROVED BY:		

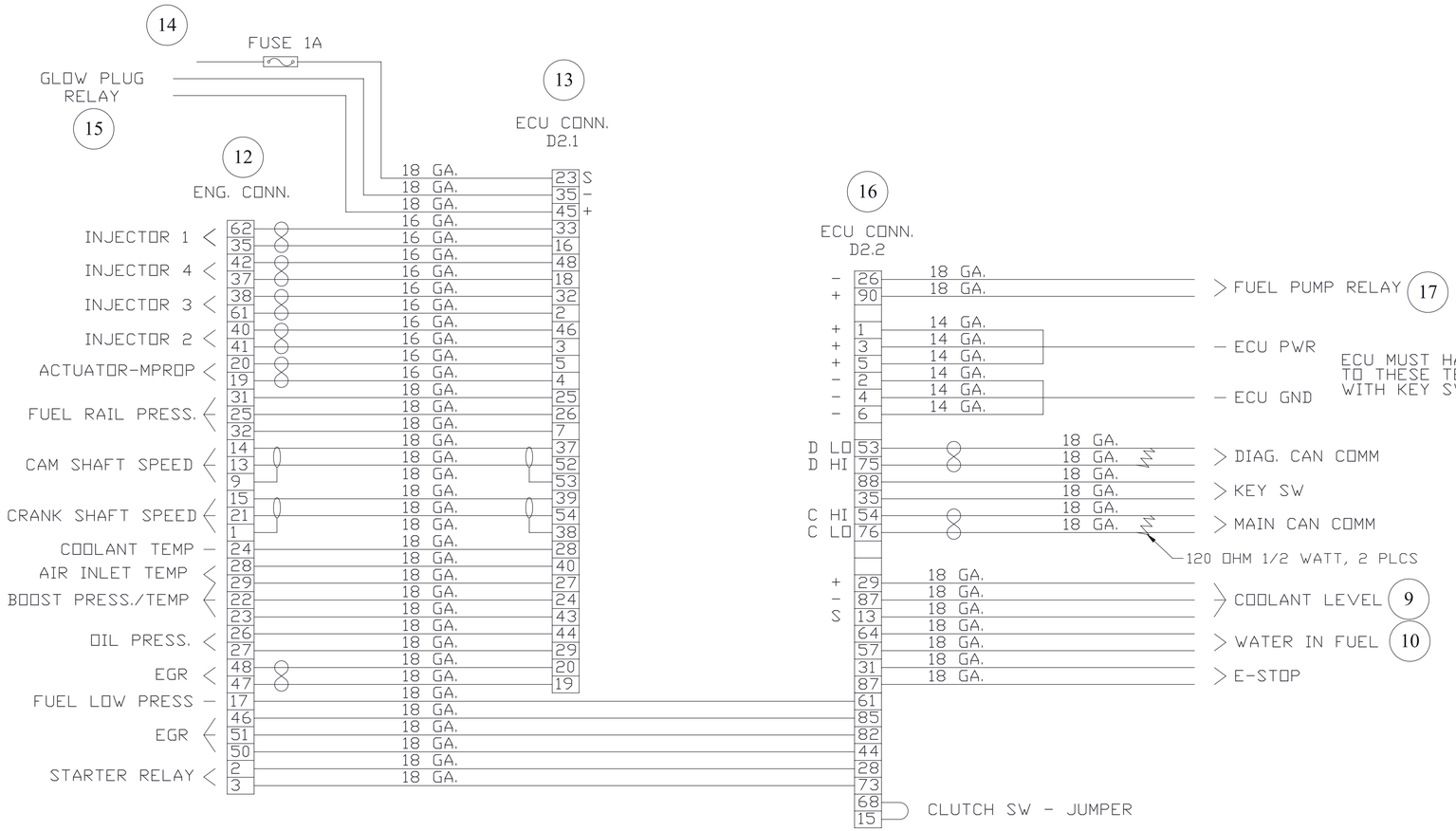
DEFAULT TOLERANCES				
DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32	
XX.XX	± 0.01	FORMED ANGLES	± 0.5°	
XX.XXX	± 0.008	SURFACE FINISH	-	

LAYTON SYSTEMS

TITLE: RT75 ELECTRICAL

PROJECT No.	THIRD ANGLE PROJECTION	SIZE	SCALE:	DRAWING No.:	REV	SHEET
		D	1:4	RT75-A-002-01	-	3 OF 4

REV - | D | RT75-A-002-01



NOTES:

1. REFER TO INSTRUMENT OVERVIEW ON SHEET 1 FOR GENERAL LAYOUT OF CONTROLS AND INSTRUMENTS.
2. ITEMS WITH BUBBLES ARE REFERENCED AT EACH NODE OR CONNECITON IN THE HARNESS.
3. ALL WIRE TO BE 18 GA. EXCEPT WHERE NOTED.
4. ALL TWISTED PAIR WIRES, APPROXIMATELY ONE TWIST PER INCH.

	NAME	DATE
DRAWN BY:	ELI KAUFMAN	7/16/14
CHECKED BY:		
APPROVED BY:		

UNLESS OTHERWISE				
	DECIMAL XX.X	± 0.1	FRACTIONAL	± 1/32
	XX.XX	± 0.01	FORMED ANGLES	± 0.5°
	XX.XXX	± 0.008	SURFACE FINISH	-

LAYTON SYSTEMS

TITLE: RT75 ELECTRICAL

PROJECT No.	THIRD ANGLE PROJECTION	SIZE	SCALE:	DRAWING No.:	REV	SHEET
		D	1:4	RT75-A-002-01	-	4 OF 4

D RT75-A-002-01 REV -