OilSafe®

Transfer Skid
Owner's Manual

IMPORTANT

- Please read this Owner's Manual carefully and thoroughly before operation.
- Please retain this owner's manual for future reference after reading it thoroughly.

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FOR YOUR RECORDS

Write the model and serial numbers here:

(You can find them on the Serial/Model No. Plate mounted at the rear of your system on a lower tank frame rail.)

Serial / Model #: _____

Supplier Name: _____

Date Purchased: _____

READ THIS MANUAL

Inside you will find important information on how to use and maintain your OilSafe Transfer Skid.

Explanation of Symbols Used

This manual contains some common symbols and indications to alert you to specific areas of importance.

WARNING

A situation that, if not avoided, could result in severe property damage, equipment damage, severe injury, or even death. FAILURE TO FOLLOW this warning will void your product warranty.

CAUTION!

A situation that, if not avoided, could result in property damage, equipment damage or injury. FAILURE TO FOLLOW this caution will void your product warranty.

IMPORTANT:

This text will be used before text that has been designated as important to the proper installation, operation, or maintenance of your system. FAILURE TO READ and understand this text may result in improper installation, operation, or maintenance procedures and may void your warranty.

TIP:

This text will be used to highlight text that is helpful in the installation, operation and maintenance of your system.

NOTE:

This text will be used to highlight text that is important to read in order to fully understand the terms and procedures used in this manual.

Warnings and Cautions

The OilSafe® Transfer Skids are designed for the storage of machinery lubricating oils and other NON-VOLATILE fluids. STORAGE OF FLUIDS WITH A FLASHPOINT BELOW 150°F (65.5°C) IS STRICTLY PROHIBITED.

Components within this system consist of materials that may not be compatible with your fluid. ALWAYS consult your supplier and refer to the fluid manufacturer's Safety Data Sheet ("SDS") before introducing a fluid to this system.

WARNING!

ALWAYS ensure the main power supply is first locked out and the system depressurized before any service is performed on this system. NEVER connect or disconnect lines or change filter elements or undertake any service work when this system is running or energized. SEVERE INJURY OR DEATH MAY OCCUR.

CAUTION!

System Operating Pressure should NEVER exceed 150 PSI. Operating pressures can be regulated by adjusting pump bypass relief valves located on pump back covers suit specific lubricant viscosities and temperatures.

IMPORTANT:

ALWAYS REFER TO THIS MANUAL OR CONSULT YOUR SUPPLIER FOR MORE INFORMATION.

- ALWAYS ensure that you wear appropriate Personal Protective Equipment ("PPE") when operating this system.
- ALWAYS ensure that all system hoses, filters and fittings are securely fastened and in good working condition.
- ALWAYS ensure the system is appropriately grounded to earth utilizing relevant grounding equipment as specified and installed by your authorized electrical personnel in accordance with your local and federal regulations and safety procedures.
- Ambient room temperature where the system is installed should be in the range of 60°F (15°C) TO 80°F (26°C) with optimum room.

  Ambient temperatures will affect pump flow. Temperatures less than (<60°F / 15°C) can result in lubricant viscosity increasing above the rated ISO Code you specified at the time of order. Such adverse viscosity changes can cause higher system operating pressures than those set at the factory. System operating pressure should never exceed 150 PSI as this could cause issue with electrical amp draws and issues with the particulate filters. Contact the manufacturer for more information prior to commissioning the system if the ambient room temperature will ever fall below 60°F (15°C).

WARNING!

FAILURE TO FOLLOW System installation, safety and operating instructions may result in SEVERE INJURY OR DEATH, damage to plant and equipment and void warranties.

Warranty

OILSAFE LIMITED WARRANTY

OilSafe ("OS") warrants to the original product purchaser (hereinafter the "Customer") that the OS product for which the Customer received this warranty was designed, developed and manufactured using all due reasonable commercial care and good manufacturing practices. OS' products shall be free from defects in material and workmanship for 365 days from the original date of purchase by Customer. OS' sole obligation under this warranty is to repair or replace the product, at OS' option. OS must be notified by Customer in writing of any claim under this warranty within 30-days of any claimed lack of conformity of the product. THIS WARRANTY IS INTENDED TO BE IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED. OS SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Warranty Limitations:

In no event shall OS be liable for any loss, inconvenience or damage, whether direct, incidental, consequential or otherwise, resulting from breach of any express or implied warranty or condition, of merchantability, fitness for a particular purpose or otherwise with respect to this product, except as set forth herein. Some states or countries do not allow limitation on how long an implied warranty lasts so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which may vary, from location to location. This warranty will be interpreted pursuant to the laws of the United States and the State of Illinois. The original English language version (meaning) of this warranty controls over all translations; OS is not responsible for any errors in translation of this warranty and/or any product instructions. This warranty is not intended to confer any additional legal, jurisdictional or warranty rights to you other than those set forth herein or required by law. If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision. For products purchased in countries other than the United States, please contact OS' authorized representative (i.e., the 'company' or 'person' who represented OS or brokered the 'sale') in the country where the product was purchased.

Warranty Service Options:

For service under this warranty you must notify OS in writing. Such notification must specify in writing the product in question by model and serial number, applicable purchase order number and/or the original of date of your written notification.

You may contact OS as follows:

OilSafe
930 Whitmore Drive
Rockwall, TX 75087

Telephone: **(972) 771-1000**
Fax: **(469) 208-2115**
Email: **sales@oilsafe.com**
techservice@oilsafe.com
www.oilsafe.com

Warranty Exclusions:

Representatives and brokers of OS products are not authorized to modify this warranty in any way. It is the Customer's responsibility to regularly examine the product to determine the need for normal service or replacement. This warranty does not cover the following: Products that have been modified, neglected or poorly maintained, misused, abused or involved in accidents or natural disasters.

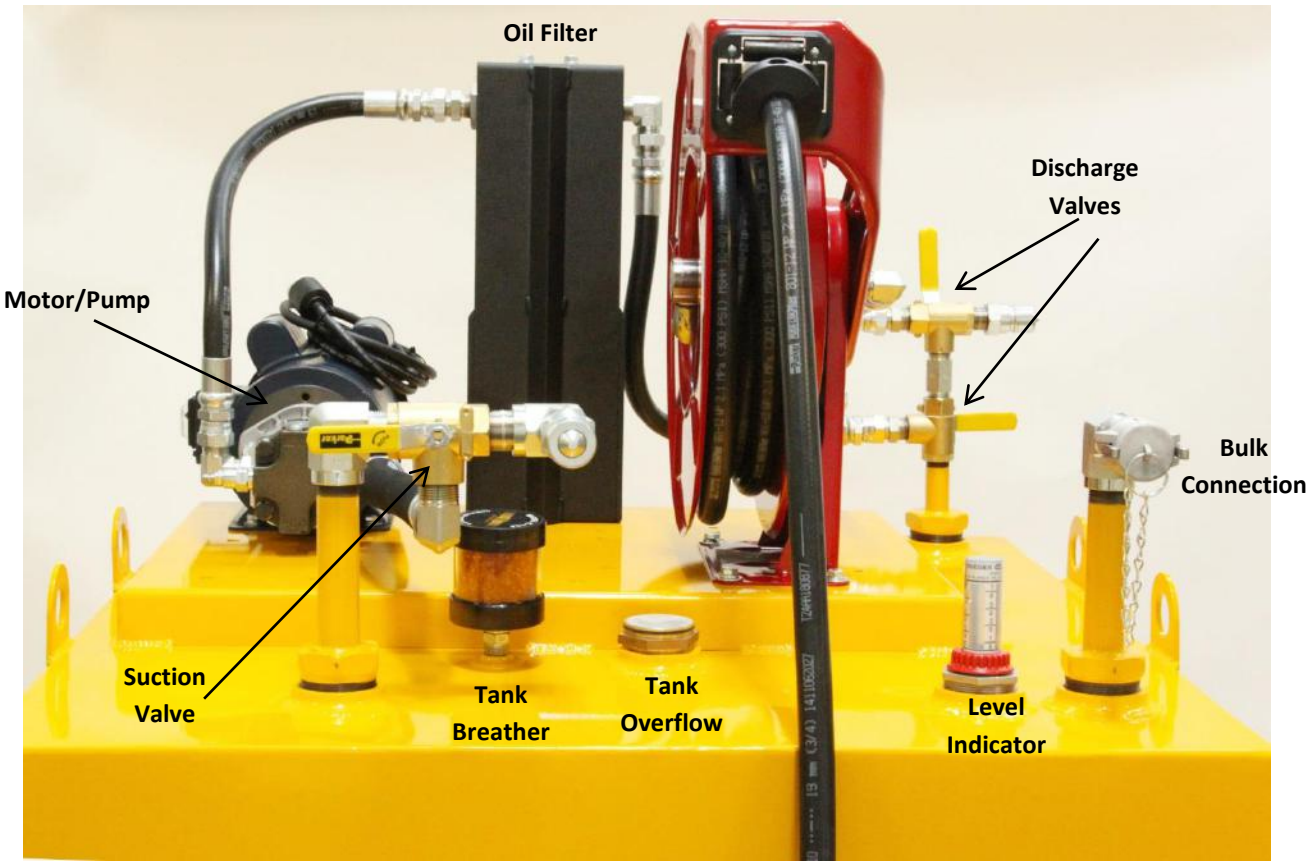
- Damage occurring during shipment of the product (such claims must be presented directly to the freight forwarder or shipping company).
- Damage to the product resulting from improper maintenance or repair, the use or installation of parts and/or accessories that are not compatible with the original intended use of the product, or the failure to follow the product warnings and usage instructions.
- Damage or deterioration to the surface finish, aesthetics or appearance of the product.
- The labor costs required to remove and/or refit and readjust the product covered by this warranty.
- Normal wear and tear to the product.
- Filter Cartridges, Desiccant Air Breathers, Level Gauges and other consumable items.
- Service Trips to Customer's location to teach Customer how to use the product.
- Defects that result from improper installation or damage not cause by OS.
- Damage to the product caused by accident, fire, floods or other acts of God.

Introduction

This OilSafe Transfer Skid System is designed to store, dispense and filter bulk lubricants. Manufactured with either a 120 gallon or 240 gallon reservoir and powered by either an electric motor or air powered diaphragm pump. *This manual addresses both configurations.*

Illustration of Valves

Illustration I



OilSafe Transfer Skids can be used to:

1) Pump oils from drums thru the filter and into the 120/240 gallon reservoir.
2) Off-line filter the oil while it's in the 120/240 gallon reservoir.
3) Dispense filtered oils from the 120/240 gallon reservoir.
4) They can also be used as an off-line filtration unit, capable of filtering other oils in equipment or drums before they are transferred. Both Suction and Discharge Quick Disconnects would be used for that operation.

Illustration II

Suction Valve

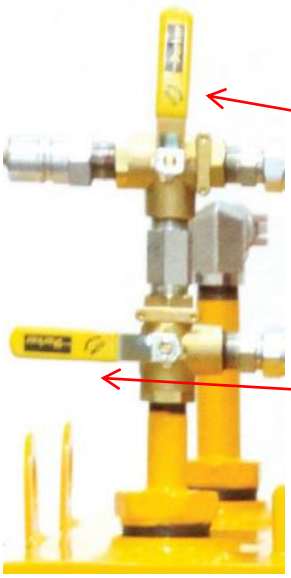
Valve Handle Positions:

Valve Handle Down (as shown) is for suction from 120/240 reservoir.

Valve Handle Up: is for suction through 1" quick disconnect

Illustration III

Discharge Valves



Valve Handle Positions:

Upper Valve Handle is for directing discharge oil from the Transfer Skid.

Valve Handle Up (as shown): will direct oil out of ½" quick disconnect.

Valve Handle Down: will direct oil to the hose reel and dispensing gun.

Lower Valve Handle is for recirculation or discharging oil from the Transfer Skid. Valve Handle Down (as shown): will recirculate oil in the reservoir.

Valve Handle Up will direct oil for discharge from the unit.

Important Information

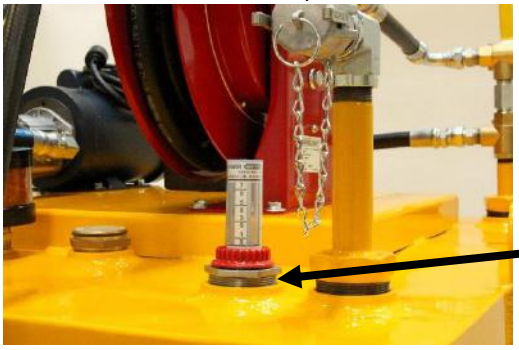
IMPORTANT:

CHECK packaging list to ensure you have all applicable parts before continuing. CONTACT YOUR SUPPLIER if it appears that any parts are missing or damaged. Refer to the specification sheet for your customized system for detailed system information including electrical requirements, and total weight of system.

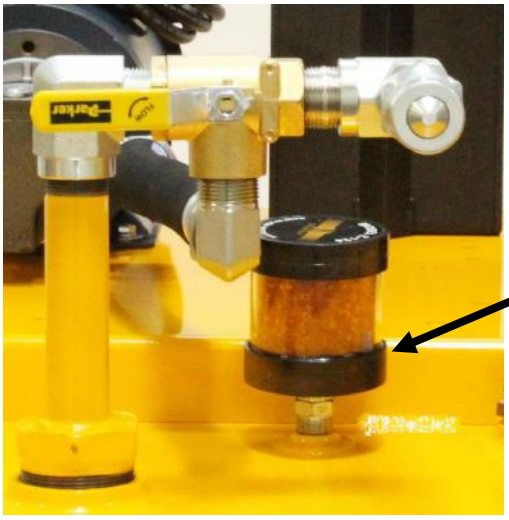
Each system section is referred to as a "Transfer Skid" in this manual. Check that you have received the appropriate u n i t for your order. OilSafe has completed the assembly for each individual Transfer Skid, with exception of the tank level indicator and the desiccant breather.

Please make sure operating valves are in "Recirculation" positions before start-up and at shut-down of units. This provides the lowest amp draw and system pressure, ensuring the safest conditions for operators during start-up and shut down of the unit.

NOTE: Instructions to complete the Tank Level Indicator and Desiccant Breather are shown below.



The Tank Level Indicator is installed into the top of the tank. On the wrench flats there is an arrow, which needs to point towards the front of the tank (Where OilSafe labels and tank labels are applied) to operate properly. An optional level alarm is available if required.

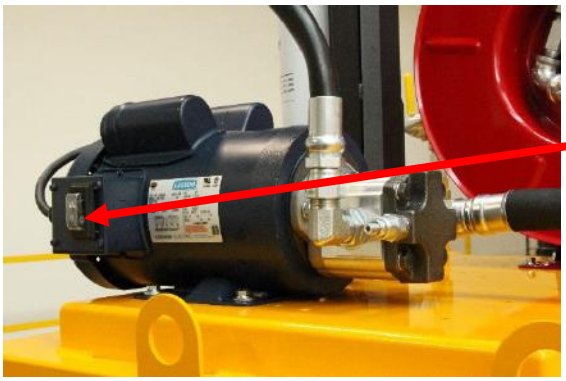


The Desiccant Breather is installed into the top of the tank in front of the oil pump and hose reel. The breather will be gold in color when new and will turn dark green when it needs to be replaced. Various sizes and types of breathers are available.

System Setup

Equipment Power Supply

- Electrical motor requires 110VAC/15AMP electrical service or if ordered for 208-230VAC electrical service, 208-230VAC/10AMP service is required. A 3 foot electric cord with a 3 prong 115VAC outlet is provided for power input.
- Air powered diagram pump will require approx. 30-60 psi at 5 cfm depending on viscosity of oil. A Pneumatic air hose quick connection port is provided for power input.



Switch for controlling "on/off" function of electric motor.

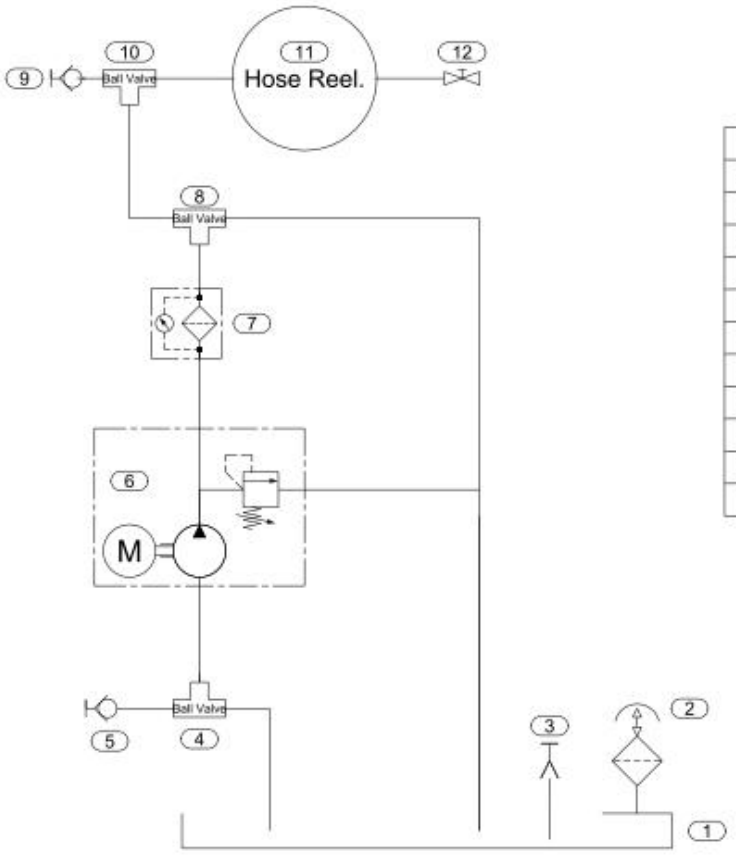
Valve for controlling "on/off" function of pneumatic diaphragm pump.

Plumbing Schematics I (Electric)

Electric Motor & Oil Pump

120 & 240 Transfer Skids Hydraulic Schematic

Electric Motor & Oil Pump

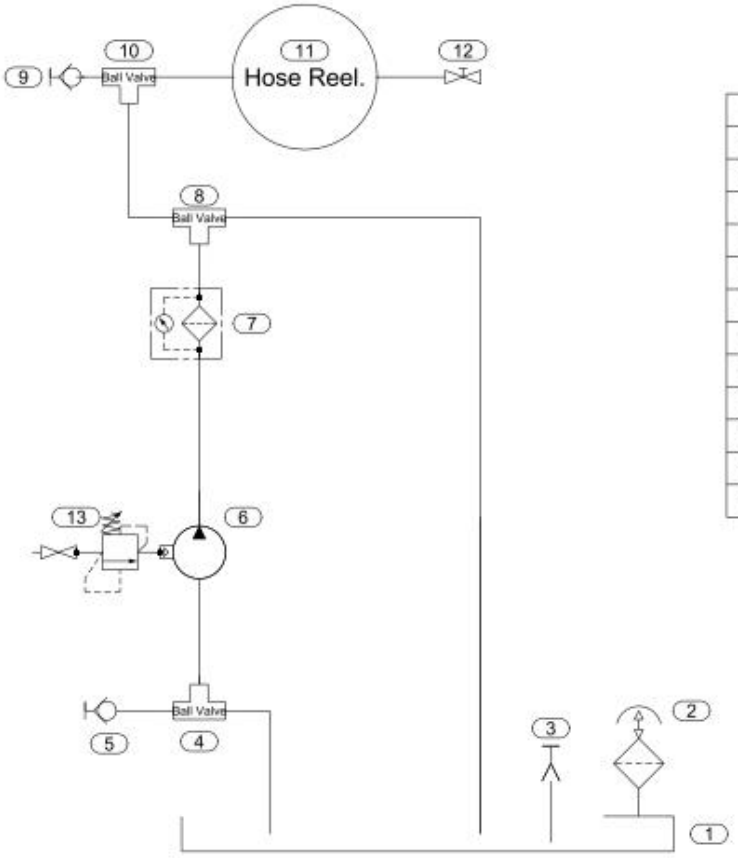


1	120 or 240 Gallon Reservoir & Skid
2	Desiccant Breather #Z-134
3	Bulk Access Camlock to Reservoir
4	Ball Valve for Tank or Remote Suction
5	Quick Disconnect for Hose Suction
6	1HP-1200RPM-Pump 3GPM/150PSI
7	Oil Filter w/Differential Visual Indicator
8	Ball Valve to Recirculate or Dispense
9	Quick Disconnect for Hose Dispensing
10	Ball Valve for Hose or Hose Reel
11	25Ft Hose Reel (Retractable)
12	Hose Reel Dispensing Gun

Plumbing Schematics II (Air)

Pneumatic Diaphragm Pump

120 & 240 Transfer Skids Hydraulic Schematic
Pneumatic Diaphragm Pump



1	120 or 240 Gallon Reservoir & Skid
2	Desiccant Breather #Z-134
3	Bulk Access Camlock to Reservoir
4	Ball Valve for Tank or Remote Suction
5	Quick Disconnect for Hose Suction
6	Diaphragm Type pump
7	Oil Filter w/Differential Visual Indicator
8	Ball Valve to Recirculate or Dispense
9	Quick Disconnect for Hose Dispensing
10	Ball Valve for Hose or Hose Reel
11	25Ft Hose Reel (Retractable)
12	Hose Reel Dispensing Gun
13	Air Shut-Off & Regulator

Troubleshooting

WARNING!

ALWAYS ensure the main power supply is first locked out and the system depressurized before any service is performed on this system. NEVER connect or disconnect lines, change filter elements, or undertake any service work when this system is running or energized. SEVERE injury or death may occur.

The Tank Isolation Valves (located on the underside of each tank) must be in the open position when operating the system and in the closed position when servicing the system.

The following troubleshooting procedures will help you identify and correct problems with your system. Every part of the system has been designed per your specifications and should not require maintenance, repair, or calibration beyond what was described in the maintenance section of this document.

If any of these troubleshooting procedures do not solve the issue, contact your supplier for additional support.

Issue	Steps to Resolve
Fluid Level Gauge is not reading correctly.	1. Remove the gauge. 2. Wipe the gauge and float assembly with a lint free cloth to remove any excess fluid. 3. Ensure all hinged joints and fittings are in good condition and moving freely and reinstall. 4. If the gauge is still not working correctly, remove it and contact your supplier for a replacement. **NOTE:** Overfilling the tanks may cause damage to the Fluid Level Gauge and cause it to read incorrectly.

The tank is not filling correctly.	1. Check to ensure the valves are in the correct position. 2. Check all fittings for cracks or leaks. 3. Check all hydraulic hoses for cracks or leaks. 4. Check the motor to ensure it is rotating in the correct direction. If not, contact your authorized Electrician. 5. Check the Pressure Gauge to make sure that the pressure level is registering when the motor is running. 6. If the Pressure Gauge is running above its normal range, it is time to replace your Spin- on Filter. Replace and check your Pressure Gauge again 7. Check the seals on the Suction Hose Assembly coupling to ensure they are not cracked or damaged. Replace if necessary. 8. Ensure the Desiccant Air Breather has had the white rubber band removed (if factory supplied breather).

Issue	Steps to Resolve
The tank is not dispensing liquid correctly.	1. Check to ensure the valves are in the correct position. 2. Check all fittings for cracks or leaks. 3. Check all hydraulic hoses for cracks or leaks. 4. Check the motor to ensure it is rotating in the correct direction. 5. Check the Pressure Gauge to make sure that the pressure level is registering when the motor is running. 6. If the Pressure Gauge is running above its normal range, it is time to replace your Spin- on Filter. Replace and check your Pressure Gauge again.

Maintenance Parts

Oil filters are medium pressure Spin-on type. Filter heads have differential indicators that turn red when the filters need to be replaced. Each filter element has installation instructions printed on them. For any additional information, please contact your OilSafe representative.

Part#	Description	Length
#469962	4 Micron Absolute β2000 – 99.95% Efficient Filter Element	14.25"
#469964	7 Micron Absolute β2000 – 99.95% Efficient Filter Element	14.25"
#469966	25 Micron Absolute β2000 – 99.95% Efficient Filter Element	14.25"
#469968	Water Removal & 25 Micron Filter Element	14.25"
#46Z134	Desiccant Breather for 120/240 reservoir (other sizes and types are available)	3.25"

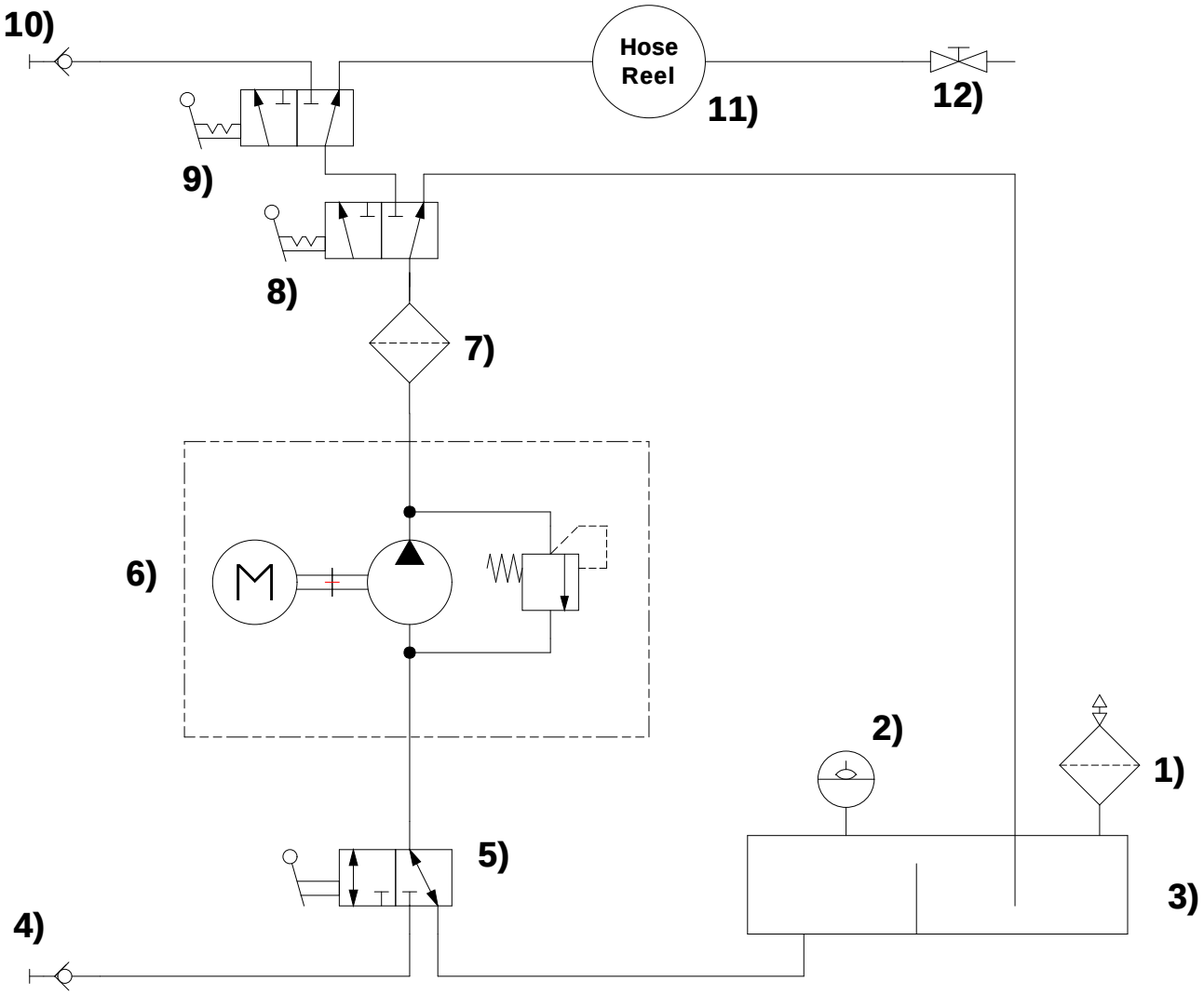
Replacement Parts

ITEM DESCRIPTION	TYPE	Part#
Electric Motor-1HP-1200RPM-50Hz	Motor	PR146018
Electric Motor-1HP-1200RPM-60Hz	Motor	PR141349
Gear Pump for Electric Motor	Pump	P3349116-548
Air Diaphragm Pump	Pump	PH787270-1Q
4 Micron (B4=2000) Oil Filter	Filter	469962
7 Micron (B7=2000) Oil Filter	Filter	469964
25 Micron (B25=2000) Oil Filter	Filter	469966
Water Removal Oil Filter	Filter	469968
Desiccant Tank Filter/Breather	Filter	46Z134
Tank Level Gauge 120 Gallons	Gauge	921105
Tank Level Gauge 240 Gallons	Gauge	921106
Tank Overfill Alarm (Audible & Visual)	Gauge	921102
25Ft Hose Reel	Hose	8Z0225
Dispensing Gun on end of hose reel	Hose	821251

WEIGHTS & DIMENSIONS

	Approx. Dimensions	Approx. Weight (empty)
120 Gallon Transfer Skid	46"W x 46"D x 60"H	450
240 Gallon Transfer Skid	46"W x 46"D x 82"H	600

OilSafe 120/240 Transfer Skid Plumbing Schematic - Rev2



1) Desiccant breather #Z134
2) Level indicator
3) 120/240 Gallon reservoir with integral baffle
4) 3/4" Female quick disconnect
5) Suction 3-way Ball Valve
6) 1HP-1200rpm motor & 3gpm(11.4lpm) 150psi(10.3bar) pump
   or Pneumatic diaphragm pump
7) Oil filter with filter condition indicator
8) Dispense or recirculate 3-way ball valve
9) Dispense hose or hose reel 3-way ball valve
10) 1/2" Female quick disconnect
11) Hose reel
12) Hose reel dispensing gun

Notes:

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