

Station 129753÷769

Dust Seal Lubrication Panels

User and Maintenance Manual

Warranty information

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1. INTRODUCTION

This manual refers to **Stations 129753÷769**. You can find additional copies and newer revisions of this document from our website <http://www.dropsa.com>. Alternatively contact one of our Sales Offices.

This user and maintenance manual contains important information on health and safety issues for the personnel. It is recommended to attentively read this manual and carefully keep it in good condition so that it is always available to personnel requiring to consult it.

2. GENERAL DESCRIPTION

Stations 129753÷769 area dust seal lubrication panels consisting in:

- two piston pumps;
- an electric control panel.

3. PRODUCT - MACHINE IDENTIFICATION

Product identification yellow label is located on the front side of the machine and contains part number, input voltage and details of the operating parameters.

4. TECHNICAL SPECIFICATIONS

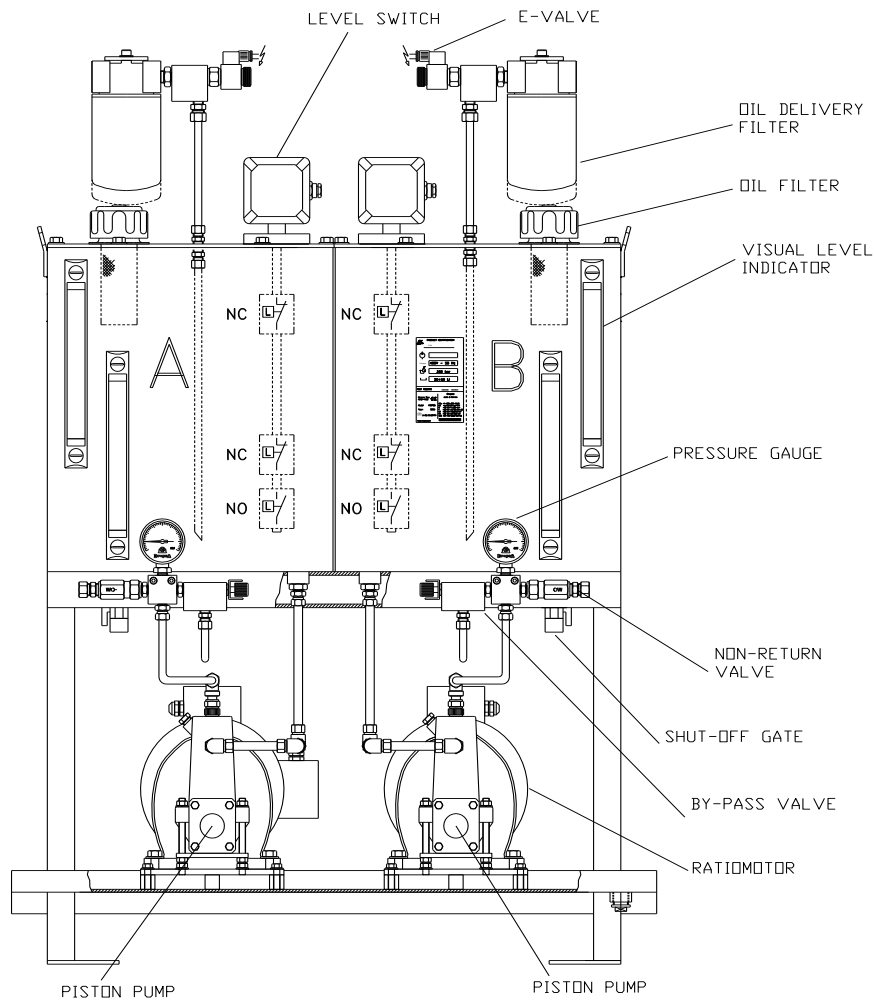
4.1 GENERAL TECHNICAL CHARACTERISTICS

Working Temperature	-10°C ÷ +80°C (+50°F ÷ +176°F)
Lubricant	Mineral oil
Lubricant viscosity (at working temperature)	32÷1000 cSt (149.9÷4628 SUS)

4.2 SYSTEM A AND B (SEE DRAWING ON PAGE 3)

	129753		129769	
Solenoid valve	2-way 220V ¼" G		2-way 24VDC 3/8" G	
Piston Pump	SYSTEM "A" TO LUBRICATION SYSTEM	SYSTEM "B" TO PROCESS OIL	SYSTEM "A" TO LUBRICATION SYSTEM	SYSTEM "B" TO PROCESS OIL
	Ø6mm (Ø0.23 in.)	Ø10mm (Ø0.39 in.)	Ø10mm (Ø0.39 in.)	
Pump Flowrate	0.10 lt/min (0.022 gals/min)	0.29 lt/min (0.063gals)	0.29 lt/min (0.063gals)	
Double reservoir	Steel sheet, capacity 50 lt (11 gals)			
Ratiomotor	1.5kW 627 RPM			
Motor	400V/50 Hz 3PH 4 POLES			
Oil delivery filter	10 µ			
Electric contact	MINIMUM level, MAXIMUM reserve supply			
By-pass valve	¼" G adjusted at: 340 bar (4998 psi)			
Oil inlet	¾" BSP female			
Oil filter	manual refill			
Shut-off gate	½" F – ½" M			
Level switch	NC-NC-NO			
Pressure gauge	0 ÷ 600 bar (0 ÷ 8820 psi)			

5. MACHINE COMPONENTS



6. UNPACKING AND INSTALLING THE MACHINE

6.1 UNPACKING

Once a suitable location has been found to install the unit, remove the station from the packaging. Check the equipment has not been damaged during transportation or storage. No particular disposal procedures are necessary as packaging materials are no dangerous for health or environment. However, packaging should be disposed of in accordance with regulations that may be in force in your area or state.

6.2 LUBRICATION SYSTEMS INSTALLATION: RECOMMENDATION AND GENERAL REGULATION

Lubrication systems must be installed by qualified personnel. Installation must comply with the regulations regarding hydraulic systems.

6.2.1 INSTALLING THE EQUIPMENT

Unit must be installed on proper bracket or base-plate. Dosing or distribution elements must be assembled on plates to facilitate possible interventions. Use anti-vibrating bearings on machines or vibrating surfaces. When working temperature is over +100°C (+212°F), piping, distributors and valves must be shielded with proper covering. In dangerous areas or when frequent maintenance interventions must be carried out, dosing elements, valves and distributors, in some cases even piping, must be shielded by metal-sheet housing or U-drawn.

6.2.2 PIPING

With external diameter up to 16 mm (0.62 in.), piping made of copper or coppered or drawn steel with double-cone or O-ring fittings, can be used. When external diameter is over 16 mm (0.62 in.), drawn steel piping with O-ring fittings or heavy steel piping with steel cone-threaded fittings, series ASA 3000 lbs must be used. As a rule, in order to avoid presence of metal particles in dosing valves, which could compromise valves well-functioning, piping must not be welded. Therefore, during installation, it is very important to carefully check piping is internally clean. Piping heat-bending must be avoided. When installing large-diameter piping (where welding is necessary), after welding, piping must be pickled in accordance with the regulations in use. To ensure stability, bracketing and clamping must be carried out.

6.2.3 PIPING FILLING

When the equipment has been assembled, piping must be carefully filled to avoid air-bubbles which could provoke system malfunctioning.

Check piping ends and threads have no burrs and both piping and accessories are clean. This precaution is necessary to prevent impurities and metal particles which, mixed with lubricant, could provoke system malfunctioning and damage to lubrication members. System must be filled with lubricant, section by section, disconnecting the ends at each section of line. Lubricant must be pumped until it flows out from the filled section compact and regular. For this kind of refilling procedure, use pumps designed for this purpose: Pneumatic Pumps Series 400200 or 234700 (You can find them in our catalogue "Dual Line – System 02"). These pumps are also necessary to fill electro-pump reservoirs.

6.3.4 LUBRICANT CHARACTERISTICS

Lubricant must be supplied by the User and chosen in accordance with the reliable firm or by consulting our lubricant table indicating lubricants different for types and trademarks.

6.3.5 TESTING PROCEDURE

When specified, machine testing procedure can be carried out by our qualified personnel at client in presence of an officer who will sign the test report as acceptance. Warranty starts from this date.

6.3 GENERAL INFORMATION ON ASSEMBLING LUBRICATION SYSTEMS

6.3.1 ASSEMBLING

The assembly of the the lubrication system does not require any special sequence of operations. First, pump unit must be mounted and then dosing valves must be installed the nearest to lubrication points. Subsequently, rigid and flexible piping must be connected (line 1 and line 2 as in the diagram of the system). In the end, hydraulic and electric connections must be carried out.

6.3.2 EQUIPMENT AND SPECIAL TOOLS

Lubrication system installation does not require any special tool or equipment.

6.4 INSTALLING THE MACHINE

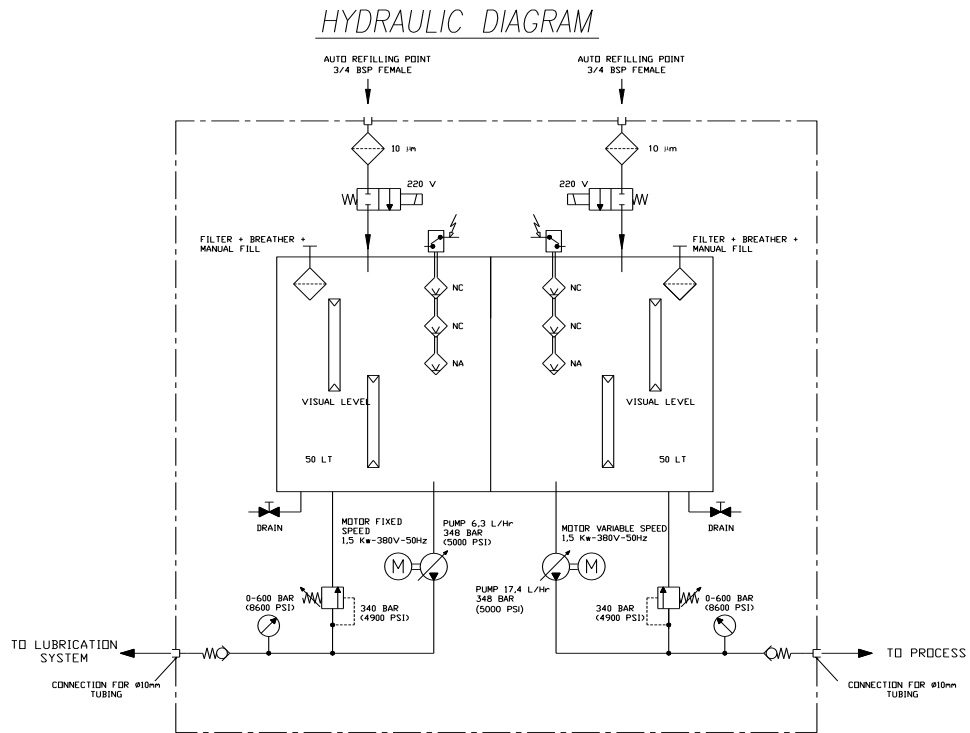
When using a hoist trolley or a crane, it is necessary to observe the following precautions:

- Lift the load enough to verify if it is balanced;
- Make sure there are no obstacles, subsindences or dangerous liquids (oil, acids) along the way.

Furthermore:

- Locate the station in an easy and reachable location.
- Do not install the machine in aggressive or explosive/inflammable environment or on vibrating surfaces.
- Location area must be large enough to allow personnel operation in accordance with safety regulation.
- For correct machine functioning, storage room must be supplied with proper electric connections.
- The User is responsible for equipping storage area in accordance with safety regulation.
- The User must also provide proper lighting in accordance with the state regulation and the Community Directives.
- In order to support the heavy equipment, flooring must be levelled, plane-surfaced, concrete industrial-type.

6.5 HYDRAULIC CONNECTIONS



WARNING: When all the connection are fitted, make sure that piping is safe from possible impacts and carefully fixed.

7. MACHINE OPERATIONS

Once the hydraulic and electric connections have been carried out, refill the reservoirs and start the system.

WARNING!

- **Lubricant must be impurity-free and viscosity must respect machine technical and functional characteristics (see ch.4).**



8. TROUBLESHOOTING

WARNING: The equipment can be opened and repaired by Dropsa personnel only

The following diagnostic table indicates the main anomalies which may be encountered, the probable causes and possible solutions.

If doubt exists or you cannot solve the problem, do not attempt to search for the trouble by disassembling parts of the machine but contact the **Eng. Dept. of DROPSA S.p.A.**

ANOMALY	PROBABLE CAUSE	SOLUTION
One of the pumps does not deliver lubricant	Empty reservoir	Refill the reservoir
	Wear of pump	Check pump and replace it, if necessary
	Motor does not rotate	Check power supply and direction of rotation (as indicated by the arrow)
	Lubricant leakage	Check piping and fittings. Tighten fittings, if necessary. Replace broken piping
	By-pass valve not calibrated	Adjust by-pass valve (see ch.4)

9. MAINTENANCE PROCEDURE

This unit does not require any special tool for checking or maintenance tasks. However, it is recommended the use only of appropriate and in good conditions tooling, protective devices (gloves, glasses) and clothing (626/94 and DPR 547/55) to avoid injury to persons or damage to machine parts.

The equipment has been designed and constructed to require a minimum of maintenance. Anyway, it is advised:

- Periodically to check the pipe joints to detect possible leaks.

Futhermore, the following general maintenance procedure must be followed:

Pumps	Refill the reservoirs always with the same impurity-free oil using the special oil filters.
Delivery filters	Every 1-2 months disassemble the filters to check for the presence of impurities. If necessary, clean them with diesel oil or petrol and compressed-air or simply replace filter cartridge.
Flexible pipes	Check for wear. Bear in mind that if flexible pipes are assembled without torsions or excessive bending guarantees life of unit.
Fittings	Check fittings are carefully tighten and there are no leakages.
Pressure gauge	Check working pressure is regular.
By-pass valve	Check valve calibration every 1-2 months. Wrong calibrations could provoke system malfunctioning and damages to machine parts.

10. DISPOSAL

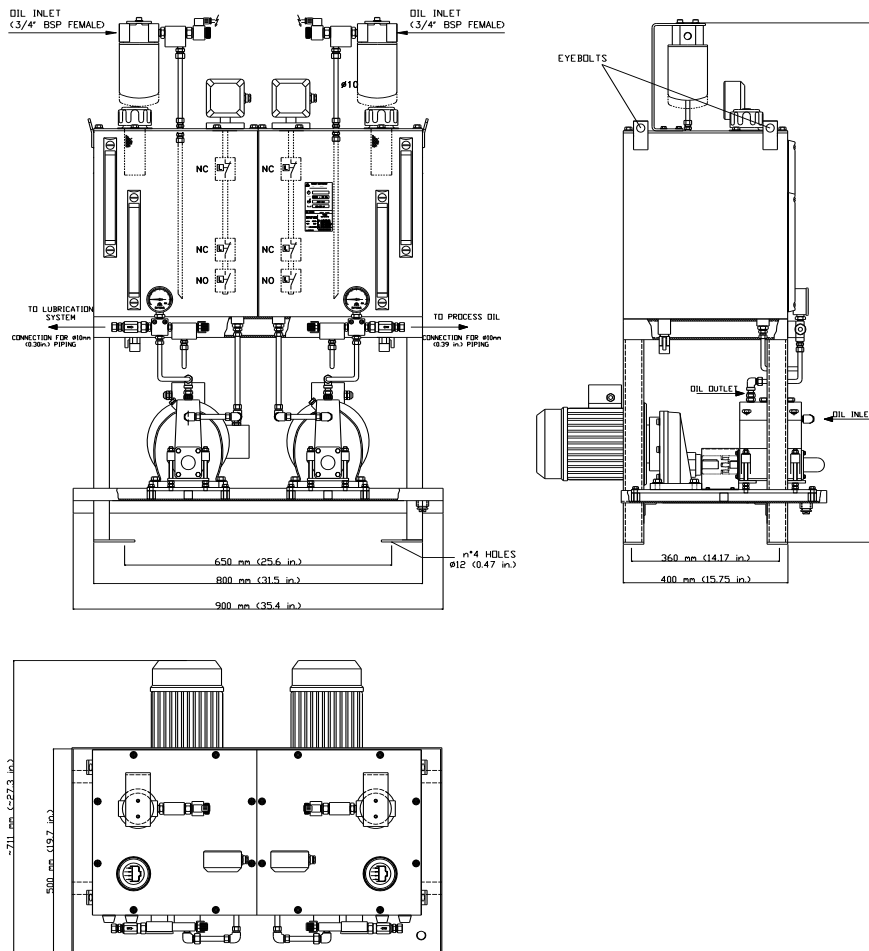
During maintenance or disposal of the machine care should be taken to properly dispose of environmentally sensitive items. Refer to local regulations in force in your area.

When disposing of this unit, it is important to ensure that the identification label and all the other relative documents are also destroyed.

11. ORDERING INFORMATION

PART N°	DESCRIPTION	WEIGHT
129753	2-way e-valve 220V (3155173), PUMP SYSTEM "A" Ø6 mm (0.23in.) – PUMP SYSTEM "B" Ø10 mm (0.39 in.)	Kg. 210 (463 lbs)
129769	2-way e-valve (3155176) 24VDC PUMPS SYSTEM "A" and SYSTEM "B" Ø10 mm (0.39 in.)	

12. DIMENSIONS



13. HANDLING AND TRASPORTATION

Prior to shipping, the unit is accurately packed and dispatched in a cardboard container. During transportation and storage always maintain the unit right way up as indicated on the box. On receipt, check that the packaging has not been damaged and store the unit in a dry place.

For handling the equipment, use only the special eyebolts (see drawing ch. 12).

14. PRECAUTIONS

It is necessary to read carefully about the instructions and the risks involved in the use of lubrication system. The operator must know system operation through the user manual.

Power supply

Before any type of intervention, machine must be unplugged from power supply. Make sure that no one can start-up the system again during the intervention. All electric and electronic equipment installed, reservoirs and basic components must be grounded.

Flammability

Lubricant generally used in lubrication systems is not normally flammable. However, it is advised to avoid contact with extremely hot substances or naked flames. As a rule, place extinguishers near lubrication equipment to use in case of fire.

Pressure

Prior to any intervention, check absence of residual pressure in any branch of lubricant circuit as it may cause oil sprays when disassembling components or fittings.

Noise

The equipment does not produce excessive noise, less than 70 dB(A) .

15. OPERATING HAZARDS

Verification of compliance with essential safety requirements and Machine Directive dispositions has been carried out filling in checking lists provided and contained in the *technical file*.

Dropsa used two kind of checking lists:

- The list of hazards (according to the EN 1050 as it refers to EN 292).
- Enforcement of the essential safety requests (Machine Directive – annex 1, part 1).

The following is a list of dangers which have not been fully eliminated but which are considered acceptable:

- Contact with oil caused by piping breaking/opening or during refilling/maintenance -> see the requirements for the use of suitable personal protective clothing. Protection against direct and indirect contact must be provided by the user;
- Use of unsuitable lubricant -> the characteristics of the fluid are shown on machine and in the manual (**in case of doubt contact Eng. Dept of Dropsa SpA**).

INCOMPATIBLE FLUIDS	
Fluid	Danger
Lubricants containing abrasive components	Premature wear of pump
Lubricants containing silicon	Pump failure
Petrol – solvents - flammable liquids	Fire – explosion - seal damage
Corrosive products	Pump damage - danger to persons
Water	Pump oxidization
Food Products	Contamination of product

16. WARRANTY INFORMATION

All products manufactured and marketed by Dropsa are warranted to be free of defects in material or workmanship for a period of at least 12 months from date of delivery. Extended warranty coverage applies as follows:

Complete system installation by Dropsa: 24 Months

All other components: 12 months from date of installation; if installed 6 months or more after ship date, warranty shall be maximum of 18 months from ship date.

If a fault develops, notify us giving a complete description of the alleged malfunction. Include the part number(s), test record number where available (format xxxxxx-xxxxxx), date of delivery, date of installation and operating conditions of subject product(s).

We will subsequently review this information and, at our option, supply you with either servicing data or shipping instruction and returned materials authorization (RMA) which will have instructions on how to prepare the product for return.

Upon prepaid receipt of subject product to an authorized Dropsa Sales & Service location, we will then either repair or replace such product(s), at our option, and if determined to be a warranted defect, we will perform such necessary product repairs or replace such product(s) at our expense.

Dropsa reserves the right to charge an administration fee if the product(s) returned are found to be not defective.

This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, normal expected wear, chemically caused corrosion, improper installation or operation contrary to factory recommendation. Nor does it cover equipment that has been modified, tampered with or altered without authorization.

Consumables and perishable products are excluded from this or any other warranty.

No other extended liabilities are stated or implied and this warranty in no event covers incidental or consequential damages, injuries or costs resulting from any such defective product(s).

The use of Dropsa product(s) implies the acceptance of our warranty conditions. Modifications to our standard warranty must be in made in writing and approved by Dropsa.

17. DECLARATION OF COMPLIANCE WITH STANDARDS

Manufacturer:

DROPSA SpA

Via B. Croce, 1 - 20090 Vimodrone (MI)

Address

02 - 250.791

Telephone number

Certifies that:

The machine: Station 129753÷769

- Has been manufactured in conformance with the EUROPEAN COMMUNITY DIRECTIVE relating to machines (98/37/CE), low voltage (BT 73/23/EEC).
- Has been manufactured in conformance with the following technical harmonised standards and specification.

EN 292-1/2, EN 1050, EN 982, EN 894-1/2

Technical Director


W. Divisi

Product Manager

Name

DROPSA SpA

Company



November 2003

Signature


Date

18. DROPSA LOCATIONS


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