

# USER GUIDE

G2-235-8.7-5 telescopic cylinder





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## INTRODUCTION

This manual has been conceived to give you all necessary informations on the G2-SERIES telescopic cylinder manufactured by Mailhot Industries Inc. You will find recommendations to follow for cylinder selection, verification and maintenance.

We believe that this manual is important to enhance the quality of service rendered by “Mailhot Industries Inc.” Customer service and satisfaction is a key element of the success of our company

## GENERAL INFORMATION

For proper maintenance of your cylinder, it is preferable to install it in a clean and clear area to open the cylinder at full stroke without obstruction

whatsoever or that could misalign tubes. Without these precautions, the cylinder could be damaged, scratched or oil losses could occur.

### MANUFACTURER REMINDER

Before starting to service your G2-SERIES telescopic cylinder, please verify if the warranty is still valid on your product. Servicing the cylinder without the consent of “Mailhot Industries Inc.” and/or with a valid warranty could void it. Please contact the Mailhot customer service to obtain an “R.G.A.”

TEL: (800) MAILHOT

St-Jacques, Quebec, Canada  
Guelph, Ontario, Canada  
Edmonton, Alberta, Canada  
Hudson, New Hampshire, USA  
Silao, Gto, Mexico

[service@mailhotindustries.com](mailto:service@mailhotindustries.com)  
[ontario@mailhotindustries.com](mailto:ontario@mailhotindustries.com)  
[alta@mailhotindustries.com](mailto:alta@mailhotindustries.com)  
[mailhotnh@mailhotindustries.com](mailto:mailhotnh@mailhotindustries.com)  
[mexico@mailhotindustries.com](mailto:mexico@mailhotindustries.com)

### DISCLAIMER

This brochure is intended to be used as a guide to normally maintain your G2-SERIES telescopic cylinder from “Mailhot Industries Inc.” All illustrations and photos should only be used as reference for disassembling and reassembling the hydraulic cylinder. “Mailhot Industries Inc.” will not be liable and is not responsible for damages due to inadequate tools and for all other damages if wrong or non-recommended parts have been used. Please contact your local “Mailhot Industries Inc.” dealer for any interpretation of the content of this manual.

	 <h1 style="margin: 0;">WARNING</h1>		YB0037-0614
<p><b>EN</b> Read and understand operators manual before using this equipment.</p> <p><b>FR</b> Lire et comprendre les manuels de l'opérateur avant d'utiliser cet équipement.</p> <p><b>ES</b> Lea y entienda el manual del operador antes de usar este equipo.</p>			
<p><b>EN</b> Failure to follow these instructions may cause the cylinder's malfunction which may result in death, injuries and/or property damage.</p> <p><b>FR</b> Le non respect de ces consignes peut entraîner la défaillance du cylindre pouvant engendrer des dégâts matériels, des blessures et/ou la mort.</p> <p><b>ES</b> El incumplimiento de estas instrucciones puede causar la falla del cilindro, causar daños materiales, lesiones y/o muerte.</p>			
 <h1 style="margin: 0;">WARNING</h1>			
		<p><b>EN</b> Always dump on firm and even ground.</p> <p><b>FR</b> Toujours décharger sur terrain plat et ferme.</p> <p><b>ES</b> Descargue siempre sobre suelo firme y nivelado.</p>	
		<p><b>EN</b> Never drive with a raised dump body.</p> <p><b>FR</b> Ne jamais rouler avec une benne élevée.</p> <p><b>ES</b> No conduzca nunca con el volquete levantado.</p>	
		<p><b>EN</b> Stay out of the working area of an operating dump body.</p> <p><b>FR</b> Rester hors de la zone de travail lorsque la benne est en opération.</p> <p><b>ES</b> Permanezca fuera del área de trabajo del camión volquete en operación.</p>	
		<p><b>EN</b> Do not overload and load evenly.</p> <p><b>FR</b> Ne jamais surcharger et toujours répartir le chargement.</p> <p><b>ES</b> Nunca sobrecargue el volquete y siempre distribuya la carga.</p>	
		<p><b>EN</b> Never be under an unsupported body.</p> <p><b>FR</b> Ne jamais être sous une benne non supportée.</p> <p><b>ES</b> Nunca estar debajo del volquete sin soporte.</p>	
<p><b>EN</b> This cylinder is not designed to be used as a structural member or to be subject to side loads or used under abnormal usage.</p> <p><b>FR</b> Ce vérin n'est pas conçu pour être utilisé comme élément structurel ou pour travailler sous l'effet de charges latérales ou être utilisé sous des conditions anormales.</p> <p><b>ES</b> Este cilindro no está diseñado para ser utilizado como un elemento estructural o para trabajar bajo el efecto de las cargas laterales o para usarse en condiciones anormales.</p>			

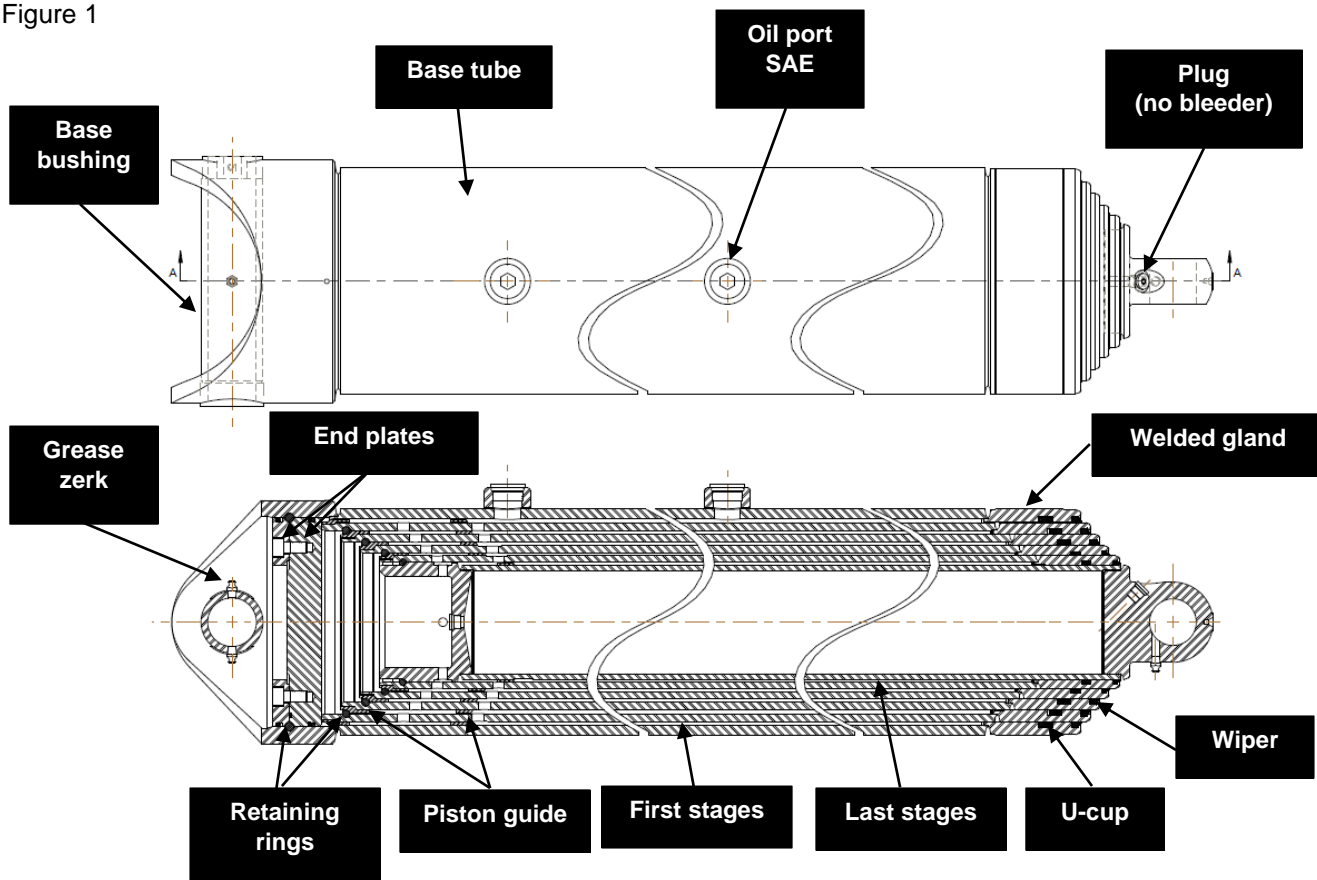
## CYLINDER PARTS DESCRIPTION

Our new generation G2-SERIES telescopic cylinder is the result of R&D efforts, a long experience and extensive field expertise. The characteristics of this cylinder for dump truck and dump trailer applications, make it more efficient, reliable and durable. This new generation of cylinder is improved with better selected tube sizes and wall thicknesses which result in a more compact design and increased operating efficiency.

The O.D. and wall thicknesses of the selected DOM tubes make this cylinder more compact, using less oil while increasing its capacity. All stages are 100% nitrated increasing resistance against corrosion, wear and scores. Unlike chrome, this treatment does not add material to the tube surfaces which can peel-off. Instead, it treats the surface making it harder and more corrosion resistant.

The welded piston and gland design improves performance and makes assembly and disassembly very simple. All parts are removable from the base end cap, using a minimal set of basic tools.

Figure 1



## SAFETY FIRST – SUGGESTIONS AND RECOMMENDATIONS ON SAFETY ASPECTS FOR YOUR CYLINDER



### WARNING

Failure to follow these instructions may cause cylinder malfunction, leakage, which may result in death, injuries and/or property damage.

### VISUAL INSPECTION AND ROUTINE MAINTENANCE

When doing your inspection routine, a visual verification is necessary to ensure the good working state of the cylinder and the hydraulic installation to avoid any breakage or leakage that could damage the cylinder or the truck:

- Inspect leaks at the oil tank, pump, cylinder and hoses;
- Ensure that all hoses and fittings are in good condition;
- Verify that cylinder attachments and mounting points are secure and not worn;
- Inspect rear hinge for excessive wear.

### PRESSURE IN THE CYLINDER

When the cylinder is under pressure, a small leak could allow oil to escape at high velocity causing serious injury. Avoid loose clothing, always wear safety goggles and work gloves when working around a pressured system requiring service.

When servicing a cylinder, great care must be taken because there is always residual pressure that remains in the cylinder. Pressure can remain in a cylinder even after it has been removed and in storage for some time. When stages are moved, even without oil supply, pressure can build up between the stages, especially if an oil port is clogged or blocked. A sudden unclogging, removal of blockage, or leak in a seal can generate enough pressure to cause serious injury.

### CYLINDER AND HYDRAULIC SYSTEM REQUIREMENT

When servicing the cylinder or any components related to the cylinder, ensure that such components are approved for operating pressure. The maximum operating pressure of the cylinder is specified on the identification label or warning label. Cylinder always requires clean oil.

- The hydraulic oil contamination must not exceed the 20/18/15 class of ISO 4406 Standard to prevent seal deterioration.
- Hydraulic oil and filter must be replaced at least once a year.

There is no bleeder on this cylinder. It is important to make sure that pump and hoses are filled with hydraulic oil prior to pressurizing the cylinder.

## HYDRAULIC OIL

To obtain optimum performances from your hydraulic installation (pump-cylinder) we recommend to use oil specifically designed to be used in hydraulic systems with a viscosity grade OF 32 cSt (150 SUS) with anti-friction additives. Also, it is important to verify the chemistry of the oil to ensure that the different components and additives are compatibles with all system parts exposed to this oil.

We recommend the use of Shell **Tellus S2V** with your cylinder.

## LUBRICATION OF ATTACHMENTS

We recommend the use of a high viscosity petroleum based grease formulated with extreme pressure, anti-wear and anticorrosion additives including molybdenum disulfide. The lubricant should include a lithium complex thickener to offer good oxidation stability, good shear stability, high temperature protection and to seal effectively against dust and resist the washing effect of water. This composition is offered, on the market, in viscosity suitable for cold and warm temperature operation. (ex: Application at 5°C and above: Esso Moly H™, below 5°C: Esso EP1 Moly™ or equivalent)

- Inspect and grease both lubrication zerks of top and bottom attachments weekly or more often in heavy-duty service.

## HANDLING

When it is time to move the cylinder for either installation, removal or storage, it is important to handle it with great care. Hard knocking of the outer wall should be considered as serious damage or should be treated as such. It is necessary to inspect the cylinder to find any scorching, scoring, leaks of different stages or any other parts that are damaged. If leaks are visible and the cylinder is rendered unusable, please bring it back to the closest service center for evaluation by qualified technicians. A damaged cylinder installed on a vehicle can result in injuries or even death.

## STORAGE

If the cylinder must be stored, it should be protected from bad weather, direct sunlight and extreme temperature variations. Oil ports must be sealed with adapted plugs to avoid dust, water, humidity or any other contaminant to enter into the cylinder. Depending on the length of time spent in storage, some supplemental precautions should be taken. These precautions are showed below;

- A- For a 6 months storage or less, no special precautions others then those stated above.
- B- For a storage period between 6 months and less than 12 months, cylinders should be stored vertically.
- C- If storage period is more the 12 months and less than 24 months, a pressure test must be done to ensure the good state of seals prior to utilisation.
- D- After a storage period of more than 24 months, all seals must be replaced.

If storage facilities are open or non-existent, the cylinder should at least be stored vertically and filled with oil.

## GOOD USE AND LIMITATION OF THE CYLINDER

- A cylinder is a lifting device only. A cylinder is not a structural component of the truck/box assembly. A cylinder is not and should not be considered as a stabilization device.
- A cylinder should be allowed to stroke without any obstacle. There should be nothing in the path of the cylinder that could interfere with its natural movement during extension or retraction.
- A cylinder should be replaced and installed only by qualified people, otherwise, this could result in damage, injury or death.
- When operating a cylinder, equipment should be on level ground and all axles should be in the same alignment. Trailer should never be unload in a “jack-knife” position.
- Never unload if the dump is not level, too ground soft or strong winds are present. Lateral movements will result in damages to the cylinder and misalignment of the cylinder's stages, leading to a possible rollover of the truck.
- Never unload if equipment or people are around the dump truck or trailer.
- Operator of the equipment should always stay at the controls. If the trailer starts to tilt, it should be lowered immediately. Always be careful not to lower the trailer too fast and suddenly stop it. This will cause a sudden peak in pressure within the cylinder and could damage it.
- Never overload the trailer. Load should be evenly distributed in the trailer in both longitudinal and transversal manner. A load that sticks to the trailer is a high tilting or rollover risk. Operator should lower the box to investigate.
- Never jerk the trailer to release a stuck load. This will increase the constraints to the truck and the cylinder as well. It is preferable to lower the trailer and to use a manual or mechanical mean to correct the situation. Do not move the truck and/or do sudden stop with cylinder at full extension to correct the situation.
- Overpressurization of the cylinder must be avoided. This could cause serious injuries or even cause death and/or cause important damages to the cylinder. Do not operate a cylinder with pressure above the maximum operating pressure specified on the cylinder without a written notice and approval from Mailhot Industries Inc.
- Maintenance of the equipment is key to have it working to prescribed standards. An inspection routine should be a part of the safety rules and will help to detect problems before it can damage cylinder and/or truck.
- Hydraulic oil changes are important. This procedure will avoid contaminant accumulation in the oil tank, leading to cylinder obstruction or damage.



## SERVICE PARTS

MATERIAL LIST			
DESCRIPTION	INDEX	QTY	
BASE TUBE Ø98.89	1	1	
END CAP Ø98.118	2	1	
END CAP Ø98.118	3	1	
SECTION Ø98.69	4	1	
SECTION Ø7.67	5	1	
SECTION Ø6.67	6	1	
SECTION Ø5.34	7	1	
SECTION Ø5.34	8	1	
LAST SECTION Ø5	9	1	
BUSHING	10	1	
SNAP RING Ø98.118	11	1	
SNAP RING Ø98	12	1	
SNAP RING Ø7	13	1	
SNAP RING Ø6.116	14	1	
SNAP RING Ø5.14	15	1	
SNAP RING NS100.275	16	3	
GREASE FITTING STRAIGHT 1/8 NPT	17	2	
PLUG SAE 6	18	2	
SEAL KIT 8.7.5 (FOLLOWING ITEM):	19	1	
U-CUP DZ Ø9.185 X Ø9.695 X Ø16	20	1	
U-CUP DZ Ø8.175 X Ø7.675 X Ø16	21	1	
U-CUP DZ Ø7.175 X Ø6.675 X Ø16	22	1	
U-CUP DZ Ø6.170 X Ø5.795 X Ø8	23	1	
U-CUP DZ Ø5.338 X Ø5 X Ø8	24	1	
WIPEER DT Ø8.695	25	1	
WIPEER DT Ø7.675	26	1	
WIPEER DT Ø6.675	27	1	
WIPEER DT Ø5.795	28	1	
WIPEER DT Ø5	29	1	
BACK-UP Ø9.118 X Ø8.3/4	30	1	
ØRING Ø98.118 X Ø9.3/4	31	2	
H.S.H.C.S. Ø12 X 1 LIG	32	2	

DESSINÉ PAR: F. FRECHETTE APPR. DIMENSIONNELLE:	TITRE: PG0872355HG0112-SP NO. DE REVISION:	ÉCHELLE: N.T.S. DATE: 17-Aug-15	REVISION: 0
PROJECTION:		UNLESS OTHERWISE SPECIFIED DIMENSIONAL LIMITS ON FINISHED SURFACES ARE TO BE:	
SIMON SPECIFIEE LES LIMITES DIMENSIONNELLES DES SURFACES FINIES DEVRAIENT ETRE:		LIMITS ON FINISHED SURFACES ARE TO BE:	
DECIMALE ± 0.15 SOUS-UNITE ± 0.102 ANGLAIS ± 0.15		DECIMAL ± 0.15 WELDING ± 0.18	
FRACTIONNELLE ± 1/32 ANGLAIS ± 1/32		FRACTIONAL ± 1/32 ANGLAIS ± 1/32	

DESCRIPTION DE LA REVISION	DATE	REV.	R/MDD

## SEAL MAINTENANCE AND PREVENTIVE REPLACEMENT

The most susceptible part to fail in this cylinder are the seals. They are exposed to physical and chemical attacks such as friction, extrusion, vibration, temperature, pressure, speed, water, ice, mud, and the hydraulic oil. It is important to minimize these external factors using the right seals and hydraulic oil within working condition of this cylinder.

PREVENTIVE REPLACEMENT OF SEALS: 4 YEARS or 24,000 HOURS (whichever comes first)

SEALKIT LIST UI47G0875		UI47G0875(S) JOINTS DE REMPLACEMENT / SERVICE SEALS	
PART NBR MAILHOT NO PIECE MAILHOT	DESCRIPTION	MATERIAL MATERIEL	QTY
UI76500025	U-CUP DZ 05-3/8 X 05 X 3/8	A8504/F1504	1
UI76579525	U-CUP DZ 06-1/70 X 05.795 X 3/8	A8504/F1504	1
UI76667637	U-CUP DZ 07-1/75 X 06.675 X 9/16	A8504/F1504	1
UI76767537	U-CUP DZ 08-1/75 X 07.675 X 9/16	A8504/F1504	1
UI76869537	U-CUP DZ 09-1/95 X 08.695 X 9/16	A8504/F1504	1
WA345000	WIPER DT 05	U-1003	1
WA345795	WIPER DT 05.795	U-1003	1
WA346675	WIPER DT 06.675	U-1003	1
WA347675	WIPER DT 07.675	U-1003	1
WA348695	WIPER DT 08.695	U-1003	1
XA03372	BACK-UP 09-1/8 X 08-3/4	URETHANE	1
XE01372	O-RING 09-1/8 X 08-3/4 (PARKER NI470/N0674)	BUINA 70	1

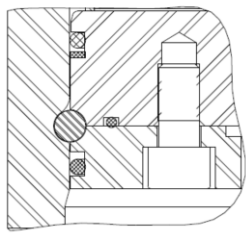
  

PART NBR MAILHOT NO PIECE MAILHOT	DESCRIPTION	MATERIAL MATERIEL	QTY
XE01266	O-RING 08 X 08-1/4 (PARKER NI470/N0674)	BUINA 70	1
XE01372	O-RING 09-1/8 X 08-3/4 (PARKER NI470/N0674)	BUINA 70	1
ZA0802500500	HEX SET SCREW 1/4-28 X 1/2 LG.	STEEL	2

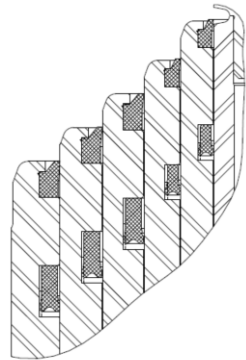
  

SEAL KIT CONFIGURATION


1) END CAPS



2) GLANDS



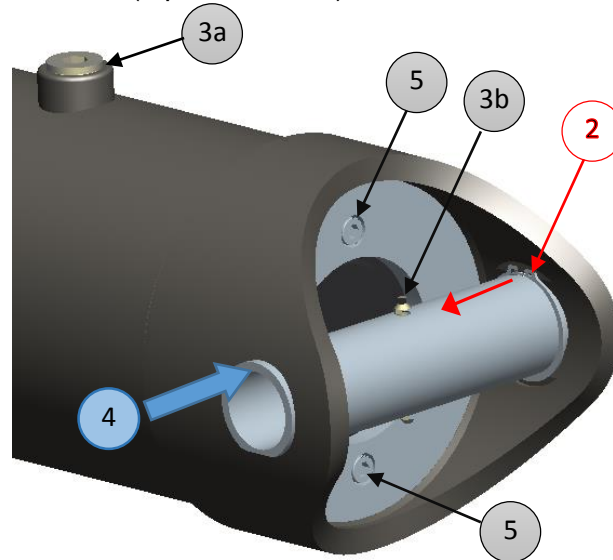
  

	<p style="text-align: center;">SEAL KIT 875</p> <p style="text-align: center;">UI47G0875</p>
<p>DATE</p> <p>DATE</p>	<p>PP</p> <p>PP</p>

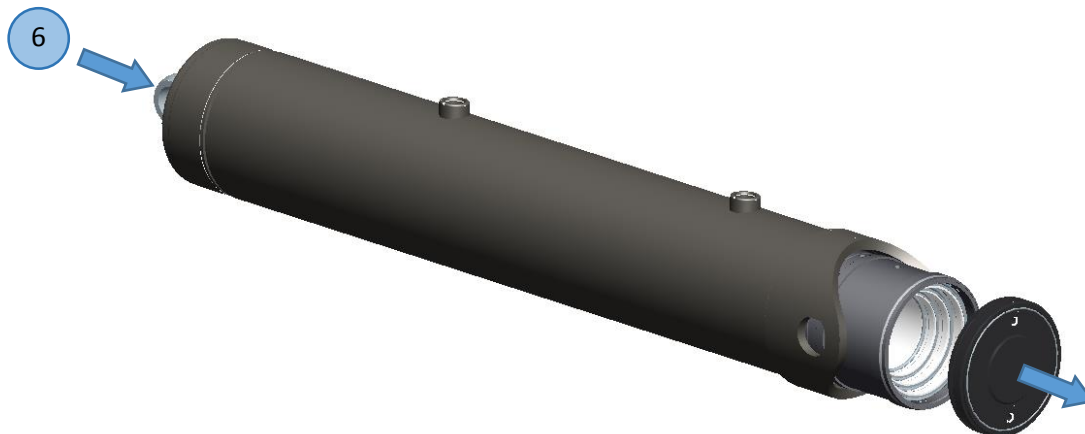
## SERVICING THE G-SERIES CYLINDER

### DISASSEMBLING INSTRUCTION:

1. Prepare a clean area where cylinder can be securely clamped in a horizontal position;
2. When cylinder is secured, remove circlip (2) from groove to middle of the bushing.
3. Remove base tube plugs (3a) and make sure cylinder is empty before hand. Also remove lubrication zerks (3b) on both attachments (top and bottom).



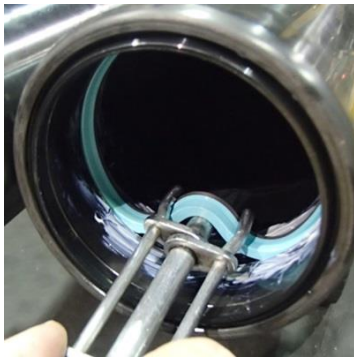
4. Press (hammer) bushing (4) out with piece of brass, plastic or wood to avoid bushing end damage. The bushing should be removed from smaller end (flat side) to larger (circlip side).
5. Remove end cap screws (5) and first end-cap plate to reach the base retaining ring (snap ring). The base snap ring can be removed with a flat screw driver and key eye to pull it out.
6. Push the stages in the base tube from the rod end attachment (6). This way, the second end-cap (main) will be pushed out. This operation may require a pan to collect residual oil left inside.



7. Push smaller stage in a few inches to be able to reach and remove snap ring.
8. Remove the stage taking care of the surface finish. Inadequate handling may cause dent or scores. Place stages on soft material to avoid damage such as wood stud or plastic strip.
9. Repeat the #7 and #8 operation for every moving stage.
10. Remove seals, clean and inspect components for any defect that could cause eventual leakage or failure. Replace damaged components and seal kits.

### ASSEMBLING INSTRUCTION:

11. After components have been cleaned, inspected or replaced, assembling can start.
12. Clamp the base tube securely in a horizontal position.
13. Install seals in every stages: u-cup lips should be inside the cylinder and wiper lip outside. The nitrile lip (black) on pressure side and always clipped to the backing piece (blue).



14. Lube the u-cup and wiper lips with hydraulic oil to help assembly.
15. Slide stages in from large to small keeping piston out a few inches. Use chain wrench between pistons.





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16. When last stage is assembled, push it few inches inside next stage to see the groove.
17. Inspect wiper and remove stage if wiper pops-out the groove.
18. Install the snap ring.
19. Remove chain wrench or screws in stage and push it few inches inside flowing stage. Repeat this operation for every moving stages.
20. Install seals on end-cap. The concave corner of end cap should be oriented to outside of cylinder for the snap ring. The o-ring should be oriented inside of cylinder to seal oil and back-up ring should be placed outside to support or back the o-ring against pressure.
21. Lube the seals on the end-cap and the inside of the base. Align the end-cap perpendicularly to the base tube and insert it in to the o-ring. Use a plastic sledgehammer to gently and completely insert end-cap to clear the base snap ring groove.
22. Install larger snap ring to the base. Align the last end-cap holes to first end cap and use the screw with lock washer to pull back the first end-cap against snap ring. Torque the screws between 60 to 70 ft-Lb in dry condition.
23. Push stages in to close cylinder to retracted length. Install grease fitting and plugs.
24. Cylinder is ready for test and installation.

## TROUBLESHOOTING

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Pressure loss	<ul style="list-style-type: none"> <li>• Safety valve is stuck in open position</li> <li>• Pump is broken</li> </ul>	<ul style="list-style-type: none"> <li>☞ Clean or replace the safety valve</li> <li>☞ Change worn-out parts</li> </ul>
Noisy pump	<ul style="list-style-type: none"> <li>• Air is infiltrating in the hydraulic circuitry</li> <li>• Pump is running too fast</li> <li>• Pump is misalign with the P.T.O.</li> <li>• Pump is broken</li> </ul>	<ul style="list-style-type: none"> <li>☞ Look for infiltration and repair.</li> <li>☞ Verify manufacturer's specifications and adjust</li> <li>☞ Correct alignment</li> <li>☞ Change worn-out parts</li> </ul>
One or more stages of the cylinder stays open.	<ul style="list-style-type: none"> <li>• Pump flow is too high, plungers and gland are jamming.</li> <li>• Pump is running too fast.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Verify if the pump is the one recommended for the type of cylinder used.</li> <li>☞ Use a lower P.T.O. coupling.</li> <li>☞ Install a limiting device</li> </ul>
Cylinder is leaking oil	<ul style="list-style-type: none"> <li>• Seals are worn</li> <li>• Misalignment of the cylinder with frame or back hinges.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Change worn-out parts.</li> <li>☞ Verify and correct alignment.</li> </ul>
Stage (s) is (are) scored	<ul style="list-style-type: none"> <li>• Misalignment of the cylinder with frame or back hinges.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Verify and rectify the alignment.</li> </ul>
Cylinder opens and closes without a smooth operation	<ul style="list-style-type: none"> <li>• Oil tank is too small for the cylinder capacity.</li> <li>• Internal parts of the cylinder are too worn-out</li> </ul>	<ul style="list-style-type: none"> <li>☞ Call your Mailhot Industries representative to obtain a tank size recommendation</li> <li>☞ Verify worn-out parts and replace them.</li> </ul>
One of the stage does not work	<ul style="list-style-type: none"> <li>• One of the plunger or gland is swelling or not sliding smoothly.</li> <li>• Pressure from the pump is too low.</li> </ul>	<ul style="list-style-type: none"> <li>☞ Verify and replace worn-out parts.</li> <li>☞ Verify and readjust pump pressure.</li> </ul>

# WARRANTY G2-235-8.7-5

## A. TERM

Mailhot Industries Inc. warrants from **DATE OF INVOICE**

<b>PG0872355HG0112</b>	
<b>4 YEARS or 24,000 hrs*</b>	<b>3 YEARS or 18,000 hrs*</b>
Defect of material & workmanship	
Failure due to corroded components	
Parts	
	Labor on cylinder
	Remove & re-install (R&R)
	Transport both ways

\* Whichever comes first.

## B. COVERAGE, PARTS, LABOR AND TRANSPORT

- 1) Warranty described in section A applies only to defective parts and actual work performed on these parts by Mailhot Industries Inc. employees at their plant and subsidiaries, at a designated and authorized Mailhot Industries service centre or by a third party, provided that such work has previously been authorized by Mailhot Industries Inc. pursuant to an agreement between Mailhot Industries Inc. and the buyer. In all cases, the buyer has thirty (30) days after becoming aware of a defect to notify Mailhot Industries Inc. or its authorized representative to receive a return goods authorization number with respect to the work to be performed. Notwithstanding the above, Mailhot Industries Inc. reserves the right to refuse to replace in all or in part with respect to the product covered by this warranty.
- 2) Costs and expenditures related to the removal and reinstallation of the cylinder or the hydraulic component will be at the buyer's expense. If it is later determined that the product is defective and that the defect is covered by terms of the warranty, a credit for the costs and expenditures of a standard installation discussed in our service manual will be issued to the buyer.
- 3) This warranty limits the labor allocation to a specific maximum which has been predetermined by case and geographic location. You must contact Mailhot Industries for more details.
- 4) Cylinders or hydraulic components brand labelled "Mailhot Industries" must be returned to Mailhot Industries Inc., or its authorized representative, ground prepaid. If it is later determined that the product is defective and that the defect is covered by the terms of the warranty, the transportation costs will be credited to the buyer.

## C. NON COVERAGE (EXCLUSIONS)

This warranty does not cover the following:

- 1) Modification of Mailhot cylinder and its components or Mailhot hydraulic component by the buyer or user;
- 2) Inadequate maintenance of Mailhot cylinder and its components or Mailhot hydraulic component;
- 3) Abuse of Mailhot cylinder and its components or Mailhot hydraulic component;
- 4) Local wear due to excessive vibration on the outside diameter of movable tubes;
- 5) Installation or utilization against the instructions contained in the service manual;
- 6) Utilization of Mailhot cylinder and its components or Mailhot hydraulic component after noticing a defect, a malfunctioning or another problem affecting its performance;
- 7) Repair work on a Mailhot cylinder and its components or Mailhot hydraulic component that has not been authorized by Mailhot Industries Inc.;
- 8) Failure of a Mailhot cylinder and its components or Mailhot hydraulic component as a direct or indirect result of impact or any type of accident involving a vehicle or equipment in which the Mailhot product is installed;
- 9) Utilization of a Mailhot cylinder and its components or Mailhot hydraulic component in pressure conditions exceeding the specifications recommended by Mailhot Industries Inc.;
- 10) Utilization of a Mailhot cylinder and its components or Mailhot hydraulic component within a hydraulic system lacking an adequate filtering element or system recommended by Mailhot Industries Inc (i.e. Presence of any contaminants or water);
- 11) Travel fees of the buyer to perform an evaluation of a problem on a Mailhot cylinder and its components or Mailhot hydraulic component;
- 12) Expenses for lubricant and workshop supplies;
- 13) Expenses to repaint a Mailhot cylinder and its components or Mailhot hydraulic component;
- 14) Failure to inform Mailhot Industries Inc. or its authorized representative more than thirty (30) days after a defect has occurred or has become apparent;
- 15) Normal wear and tear of the seals or wear caused by contamination.
- 16) Inappropriate storage. Refer to the service manual.

## D. LIMITATION OF LIABILITY

Mailhot Industries Inc. shall not be liable for incidental or consequential damages or contingent liability of any kind whatsoever, including, but not limited to, loss of life, personal injury, loss of business income, down time costs, loss of trade, loss of vehicle usage, equipment, or any other loss of any nature whatsoever arising from the failure of a Mailhot Industries Inc. cylinder or its components or a Mailhot hydraulic component covered by this warranty. Any warranty or condition arising by statute, including any implied warranty of merchantability or fitness for a particular purpose, applicable to the products to which this warranty applies is hereby excluded. The coverage described in this warranty is the exclusive remedy available to a purchaser.

## E. GOVERNING LAW

This warranty shall be governed and construed in accordance with the laws of the province of Quebec and the buyer hereby attorns to the jurisdiction of the courts, district of Joliette – Province of Quebec, unless the product was purchased through a Mailhot Industries Inc. subsidiary, in which event the buyer may choose the law and commence legal proceedings in the jurisdiction in which the subsidiary is located.

June, 2015