

# rotobec

# **OWNER'S MANUAL**

R 150001-1

5X02-001

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#### INTRODUCTION

Before using this manual, we recommend you double check that the model number and serial number on your grapple and/or rotation assembly are identical to the numbers listed below.

This parts and maintenance manual was prepared to help you get acquainted with your new Rotobec unit. We strongly recommend that you look through your manual and keep it with your machine for future reference.

It is designed to:

- Provide necessary information for installation, maintenance and instructions for ordering replacement parts.
- Assist in troubleshooting.
- · Provide warranty information and registration certificate.

Your Rotobec unit was built to maintain a high degree of efficiency at all times. In order to preserve this quality, *it is important to establish a good maintenance program, (see the maintenance section of this manual).* Ask your dealer or your representative to explain the operating functions and the maintenance procedures.

# PARTS ORDERING INSTRUCTIONS

When ordering parts, mention part name and part number. Always specify your model number, serial number and give specific shipping instructions.

Please note that the accuracy of the illustrations has been set aside in order to group different models on the same page.



# FOR ROTOBEC ROTATION SYSTEMS 140000, 190000 AND 240000 MODELS

To assure proper protection of your rotation system, the hydraulic pressure and the oil flow from the control valve going towards the cushion valve should be adjusted as listed in the chart below:

| Rotation<br>model | Cushion valve cartridge adjustment | Maximum supply pressure | Maximum recommended flow |
|-------------------|------------------------------------|-------------------------|--------------------------|
| 140000            | 1700 psi                           | 2500 psi                | 30 GPM                   |
| 190000            | 2100 psi                           | 2500 psi                | 30 GPM                   |
| 240000            | 2700 psi                           | 2500 psi                | 40 GPM                   |

On the other hand, from the rotation system going towards the control valve, the oil flow should be as free as possible.

The motor cases of these rotation mechanisms must be drained. The drain line pressure must not exceed 100 psi. It is recommended to have a drain line directly to the tank (see illustration on next page).

The make-up port on the cushion valve (see next page for location) must be connected to a return line whose pressure is 60 to 200 psi above the one in the drain line.

The maximum recommended flow corresponds to a rotation speed of 12 RPM.

If your loader fits all of the above requirements, a ROTOBEC rotation system can be installed without any modification. However if this is not the case, it is usually easy to remedy. (see next page for instructions)



# INSTRUCTIONS D'INSTALLATION SUR LA CHARGEUSE POUR MECANISMES ROTATIFS ROTOBEC MODÈLES 140000, 190000 ET 240000

## Exemple I: Pression trop élevée:

Certaines chargeuses sont munies de commandes avec soupapes de régulation de pression (relief valves). Il est alors facile de réduire la pression par un simple ajustement de ces soupapes.

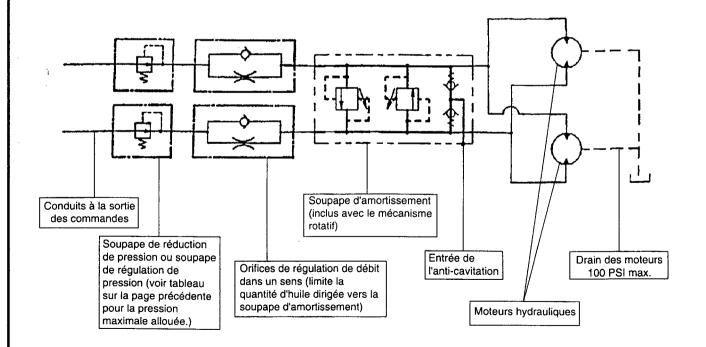
Pour celles qui n'en sont pas munies, il est possible d'en ajouter à la sortie des commandes. Des soupapes de réduction de pression ou les soupapes WJL de GRESEN peuvent résoudre le problème dans la majorité des cas (voir le tableau sur la page précédente pour la pression maximale allouée).

## Exemple II: Débit trop élevé:

On peut réduire le débit allant des commandes vers la soupape d'amortissement en ajoutant des orifices de régulation de débit dans un sens "one way valves". Ils doivent être installés tel que montrés ci-dessous. Les orifices LT50 de GRESEN ou des équivalents sont recommandés. Le diamètre de perçage est donné dans la remarque ci-dessous.

REMARQUE: - Pour modèle 140000, percez 5/32".

- Pour modèle 190000, percez 5/32".
- Pour modèle 240000, percez 3/16".





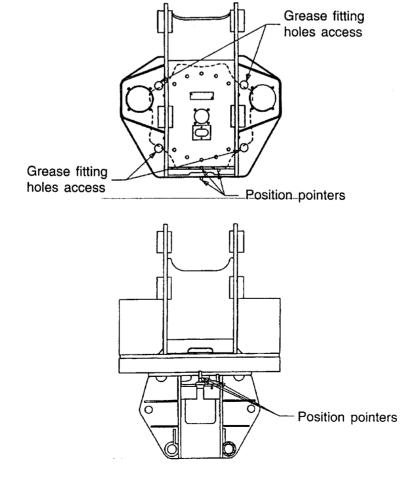
# MAINTENANCE INSTRUCTIONS FOR ROTOBEC ROTATION SYSTEMS 140000, 190000 AND 240000 MODELS

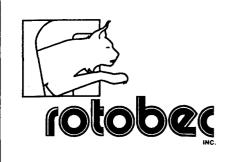
Periodic internal and external greasing of the slewing ring of your rotation system is important.

Internal: Line up the position pointers, making it possible to grease the slewing ring rollers through the holes designed for this procedure. Apply three shots of a pressure gun in each of the two grease fittings through the opening. Repeat after every 50 hours of operation (see drawing below). Type of lubricant: Extreme pressure grease such as Shell Albida LC E.P.2 (lithium complex grease) or equivalent.

**External:** Spray-grease the ring gear teeth after each 12 hours of operation. **Type of lubricant:** Use Shell open gear lubricant (spray can) or equivalent.

## POSITIONING THE POINTERS TO GREASE THE FITTINGS





**MODEL / QUANTITY** 

Note: O Use a torque wrench. Lubricated torque values in ft-lb. LT = Loctite

**OFFICE** 

R-156

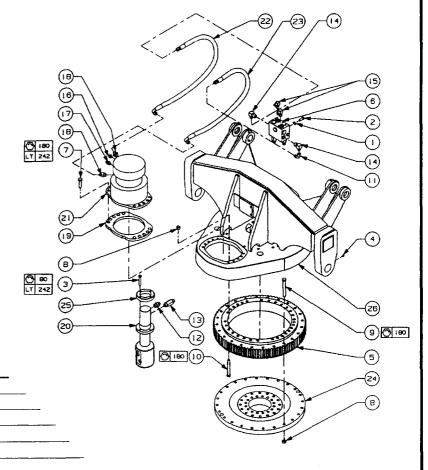
TITLE ROTATION: R-150001-1

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(BH1)

787-0004

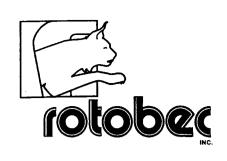


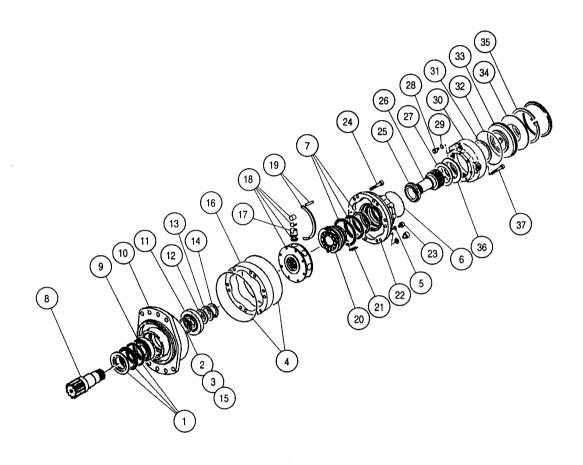
SECTION

**PAGE** 

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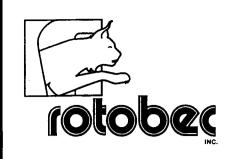
| ITEM | Α  | В | С | D | E | F | NUMBER   | DESCRIPTION              |
|------|----|---|---|---|---|---|----------|--------------------------|
| 1    | 2  |   |   |   |   |   | 013-0366 | LOCK WASHER              |
| 2    | 2  |   |   |   |   |   | 008-0240 | BOLT                     |
| 3    | 4  |   |   |   |   |   | 008-0244 | BOLT                     |
| 4    | 2  |   |   |   |   |   | 001-0001 | GREASE FITTING           |
| 5    | 1  |   |   |   |   |   | 048-0024 | SLEWING RING             |
| 6    | 1  |   |   |   |   |   | 061-9627 | CUSHION VALVE            |
| 7    | 10 |   |   |   |   |   | 008-0262 | BOLT                     |
| 8    | 48 |   |   |   |   |   | 009-0309 | NUT                      |
| 9    | 24 |   |   |   |   |   | 008-0155 | BOLT                     |
| 10   | 24 |   |   |   |   |   | 008-0154 | BOLT                     |
| 11   | 1  |   |   |   |   |   | 030-4541 | HYDRAULIC FITTING        |
| 12   | 1  |   |   |   |   |   | 030-1415 | HYDRAULIC FITTING        |
| 13   | 1  |   |   |   |   |   | 030-4277 | HYDRAULIC FITTING        |
| 14   | 2  |   |   |   |   |   | 030-1289 | HYDRAULIC FITTING        |
| 15   | 2  |   |   |   |   |   | 030-1285 | HYDRAULIC FITTING        |
| 16   | 1  |   |   |   |   |   | 030-0098 | HYDRAULIC FITTING        |
| 17   | 1  |   |   |   |   |   | 030-8954 | HYDRAULIC FITTING        |
| 18   | 2  |   |   |   |   |   | 790-1814 | HYDRAULIC FITTING        |
| 19   | 1  |   |   |   |   |   | 524-0117 | SPACER                   |
| 20   | 1  | ] |   |   |   |   | 712-1631 | COLLECTOR, see Section J |
| 21   | 1  |   |   |   |   |   | 728-0060 | MOTOR, see Section I     |
| 22   | 1  |   |   |   |   |   | 099-6439 | HOSE                     |
| 23   | 1  |   |   |   |   |   | 099-0740 | HOSE                     |
| 24   | 1  |   |   |   |   |   | 587-0025 | SPACER                   |
| 25   | 1  |   |   |   |   |   | 587-0026 | SPACER                   |
| 26   | 1  |   |   |   |   |   | 787-0003 | COVER                    |
|      |    |   |   |   |   |   |          |                          |

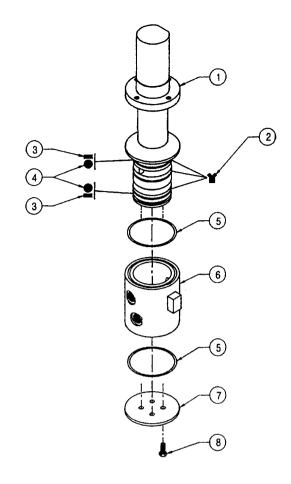




| TITLE POCLAIN, HYDRAULI | SECTION I  |              |             |         |
|-------------------------|------------|--------------|-------------|---------|
| UPDATED 06/2001         | OFFICE USE | M-11 (K3-F1) | PAGE 1 of 2 | PAGE 12 |

#### **MODEL / QUANTITY** 728-0060 DESCRIPTION BCDE F NUMBER ITEM Α 728-0251 MOTOR, all items included 1 1 124-7045 MOTOR SEAL KIT, items 1 to 6 included 124-0008 SHAFT SEAL KIT, items 2, 3 included 1 124-7181 COMPLETE BRAKE KIT, items 27 to 37 included 1 124-0021 BRAKE KIT, items 27, 31, 36 included 1 528-0202 BRAKE SPACER (not illustrated) 1 SEAL 1 QUAD-X SEAL 2 3 1 O-RING 2 O-RING 4 2 SEAL 6 1 O-RING SWIVEL JOINT SEAL KIT 124-7167 1 7 8 1 724-0088 SHAFT 9 1 124-7173 TAPERED ROLLER BEARING BEARING HOUSING 10 1 124-7171 1 TAPERED ROLLER BEARING 11 124-7174 12 1 124-7175 SHIMS 1 124-7176 SUPPORT RING 13 14 1 124-7177 **RETAINING RING** 15 1 528-0245 SEAL CARRIER 124-7195 1 CAM 46 po.3, item 4 included 16 124-7155 17 PISTON CL,0 124-7156 PISTON CL,1 124-7154 CYLINDER BLOCK, items 17, 19 included 18 1 REPAIR KIT 19 1 124-7157 SWIVEL JOINT SHAFT 20 1 124-7166 8 124-7168 **SPRING** 21 SWIVEL JOINT HOUSING 22 1 124-7180 124-7164 23 2 **BOLT** 16 124-7162 BOLT 24 25 124-7046 1 SEAL 26 1 124-7191 SHAFT 4 INNER DISK 27 -----2 124-7192 28 **BOLT** 2 SEAL 29 124-7193 30 1 124-7182 **BRAKE HOUSING** 31 1 124-7186 SHIMS 124-7187 32 1 O-RING 1 124-7188 **BRAKE PISTON** 33 1 124-7189 SPRING WASHER 34 1 35 124-7190 RETAINING RING 36 5 **OUTER DISK** -----8 124-7183 37 **BOLT** TITLE POCLAIN, HYDRAULIC MOTOR SECTION UPDATED 06/2001 OFFICE USE M-11 (K3-F1) PAGE 2 of 2 PAGE 12





**SECTION** 

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| MODEL / QUANTITY |          |  |  |  |  |  |
|------------------|----------|--|--|--|--|--|
| 712              | -1631    |  |  |  |  |  |
|                  | 712-0019 |  |  |  |  |  |
|                  | 712-1711 |  |  |  |  |  |
| - 1              |          |  |  |  |  |  |

TITLE HYDRAULIC COLLECTOR

11/97

OFFICE USE

**COL-103** 

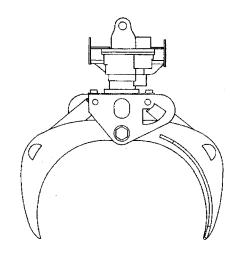
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| ITEM | Α        | В | С  | D       | E | F | NUMBER   | DESCRIPTION                  |
|------|----------|---|----|---------|---|---|----------|------------------------------|
| 1    | 1        | - | 1  |         |   |   | 512-1632 | SHAFT                        |
| ļ    | -        | 1 | -  |         |   |   | 512-0028 |                              |
| 2    | 4        | 4 | 4  |         |   |   | 034-1549 | U-CUP                        |
| 3    | 2        | 2 | 2  |         |   |   | 044-1963 | BACK-UP-RING                 |
| 4    | 2        | 2 | 2  |         |   |   | 041-1795 | O-RING                       |
| 5    | 2        | 2 | 2  |         |   |   | 044-1971 | BACK-UP-RING                 |
| 6    | 1        | 1 | `- |         |   |   | 712-6348 | TUBING                       |
|      | <u> </u> | - | 1  |         | _ |   | 712-8853 |                              |
| 7    | 1        | 1 | 1  |         | _ |   | 512-5758 | END PLATE                    |
| 8    | 4        | 4 | 4  | <u></u> |   |   | 008-0217 | CAP SCREW                    |
| *    | 1        | 1 | 1  |         | L |   | 097-3007 | SEAL KIT, items 2 to 5 incl. |
|      |          |   |    |         |   |   |          |                              |
|      |          |   |    |         |   |   |          |                              |

# **WELCOME TO ROTOBEC...**

Rotobec specializes in designing and manufacturing continuous rotation attachments. Since 1975, we have focussed our ressources on improving wood handling, thus significantly increasing the productivity of many operations.

With this valuable experience in forestry equipment and constant concern for the operator, we extend the application of our concepts to other sectors of the industry. We



now serve the industrial, construction, recycling and general handling businesses.

Our people visit end users, being attentive to their comments. This continuous feedback information is then considered when improving existing products. We frequently visit operations to keep us up-to-date. This guides the development of new products, meeting the demands of the changing market.

Our priority is to offer you a selection of attachments adapted to your job and your knuckleboom loader or excavator.

Your equipment dealer and the Rotobec organization thank you for choosing us. We feel confident that you will be delighted with your new unit for the coming years, and we would appreciate receiving your comments.

#### NOTE:

The specifications and descriptions contained in this manual were accurate at the time it was approved for printing. Since improvement is a constant goal at Rotobec, we reserve the right to make changes at any time without notice and without incurring any obligation.



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TEL.: (250) 548-0041

FAX: (250) 548-0043

TEL.: (603) 444-2103

FAX: (603) 444-0327

TEL.: (503) 288-3115

Keep this portion for your records and return bottom portion to be eligible for warranty conditions specified on reverse side.

| Owner's name:          |             |     |
|------------------------|-------------|-----|
| Dealer's name:         |             |     |
| Address:               |             |     |
| Date of purchase: Year | Month       | Day |
| Model no.:             | Serial no.: |     |

Detach here

# **WARRANTY REGISTRATION CERTIFICATE**

Return this portion of card to register purchase

| Dealer's name:              |                 |         |             |     |
|-----------------------------|-----------------|---------|-------------|-----|
| Address:                    |                 |         |             |     |
| City:                       |                 |         | _ State:    |     |
| Postal or Zip code:         |                 |         | Phone:      |     |
| Date of purchase: Year      |                 | Month   |             | Day |
| Model no.:                  |                 |         | Serial no.: |     |
| Installed on machine: Make: |                 |         |             |     |
| Model no.:                  |                 |         | Serial no.: |     |
| Main use of products:       | Loading Unloadi | ng Stac | king Por    | d   |
| Other: Please specify:      |                 |         |             |     |
| Owner's name and address:   |                 |         |             |     |
|                             |                 |         |             |     |
|                             |                 |         |             |     |
|                             |                 |         |             |     |
|                             |                 |         |             |     |
| Drietad in Consula          |                 |         |             |     |

#### WARRANTY CERTIFICATE

Starting on the installation date, Rotobec Inc. warranties the structure of this equipment and its hydraulic components for one year or 2000 hours, whichever occurs first.

This warranty covers defects for any reason other than abuse, normal wear, unauthorized modifications, operation above the recommended pressure, insufficient lubrication, or any other form of negligence or carelessness in maintenance. All installations not respecting the manufacturer's recommended flows and pressures need to be approved by Rotobec to validate this warranty. It also covers the cost of repair and in certain cases, replacement of defective parts including cost of labor, at rates determined by Rotobec Inc. It does not cover the cost of shipping or returning defective parts, transportation charges for repair or verification of such equipment, labor in diagnosis of a breakdown, time required to dismount the unit, fluid leakage or any other problem whatsoever.

All alterations or transformations will void this warranty if not previously approved by Rotobec Inc. All defective parts replaced under this warranty remain the property of Rotobec Inc. and must be returned, prepaid, for inspection as soon as possible, to the point of purchase. A claim must be submitted, adequately documented, on a claim form supplied by Rotobec Inc.

Rotobec Inc. assumes no liability for injury, loss, damage or expense directly or indirectly resulting from use of this product, from negligence or from defects in design, material or workmanship.

These warranty conditions supersede and are in lieu of all previously stated conditions. No dealer or agent is authorized to change, modify or extend the conditions of this warranty.

The above conditions only apply if the warranty registration card is returned.

| FROM: |      |      |  |
|-------|------|------|--|
|       |      |      |  |
|       |      |      |  |
|       | <br> |      |  |
|       | <br> | <br> |  |
|       |      |      |  |



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