



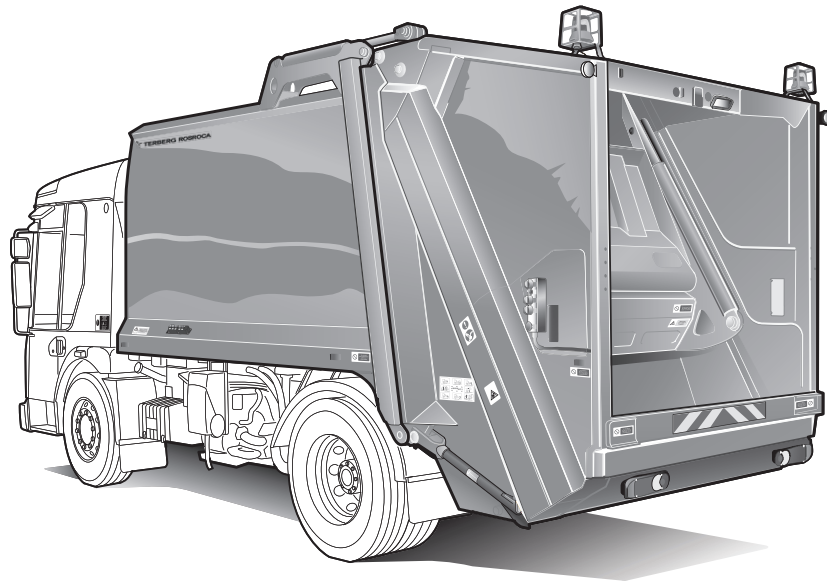
# **OLYMPUS ART**

**SERVICE MANUAL**



This Service Manual provides all the relevant service information and data necessary to carry out designated scheduled maintenance inspections and procedures on systems and components fitted to Olympus ART Refuse Collection Bodies.

This Service Manual is primarily designed to assist skilled technicians in the efficient servicing and repair of the systems and components described in the manual, but can also be used as a reference workbook for training purposes.



Olympus ART Refuse Collection Vehicle



**Caution:**

**IMPORTANT:** It is assumed that technicians carrying out service procedures described in this Service Manual appreciate, understand and carry out all workshop safety and repair procedures generally accepted by the motor vehicle repair industry.

It is most important, however, that all technicians read and understand and observe all the instructions stated in Chapter 2 “Safety Precautions and Procedures” of this Manual whenever undertaking any procedures described in this Manual.

# FOREWORD

Ros Roca S.A. (The Company) reserves the right to change the specification, design, material, procedure, and dimensions of the equipment described herein without prior notice at any time in the future, in accordance with the Company's constant product improvement policy.

Ros Roca S.A. has made every reasonable effort to ensure the accuracy of the Company publications, but nothing shown, described or referred to in the publications should be regarded as an infallible guide to the procedures, materials, specification, design or availability of any particular vehicle, nor does this publication constitute an offer for sale of any particular vehicle. No liability can be accepted by the Company for any mechanical or electrical malfunction, damage, loss injury or death caused by the use of incorrect or misrepresented information, omissions or errors that may have arisen during the preparation of this publication.

© 2020 Ros Roca.

## ALL RIGHTS RESERVED.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form without the prior permission of the Company.

Publication reference:  
OL1R-SM-GB01L-R1/September 2020.

Compiled and Published by:

Ros Roca S.A.  
AV, Cerrera, s.n.  
Tàrraga  
España  
Telephone: + (34) 973 50 81 00  
[www.rosroca.com](http://www.rosroca.com)

# CONTENTS

1	INTRODUCTION .....	1-3
2	SAFETY PRECAUTIONS AND PROCEDURES .....	2-3
3	DAILY CHECKS .....	3-3
4	HYDRAULIC SYSTEM OIL LEVEL .....	4-3
5	CLEANING .....	5-3
6	SCHEDULED MAINTENANCE .....	6-3
7	OPERATIONAL MAINTENANCE .....	7-2
8	GENERAL SPECIFICATION DATA.....	8-3
9	SUPPLEMENTARY INFORMATION .....	9-2
I	INDEX.....	I-1

THIS PAGE INTENTIONALLY LEFT BLANK

# CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1-3</b>
1.1	SAFETY PRECAUTIONS .....	1-3
1.2	ACCESS TO ROOF .....	1-3
1.3	IMMOBILISING THE VEHICLE PRIOR TO SERVICE PROCEDURES.....	1-4

THIS PAGE INTENTIONALLY LEFT BLANK



## 1 INTRODUCTION

This manual identifies all the recommended preventative maintenance service procedures and inspections to be carried out on Olympus ART refuse collection bodies.

### 1.1 SAFETY PRECAUTIONS



**WARNING:**  
IT IS THE RESPONSIBILITY OF THE TECHNICIAN TO COMPLY WITH ALL THE RELEVANT SAFETY PRECAUTIONS AND PROCEDURES LISTED IN CHAPTER 2 "SAFETY PRECAUTIONS AND PROCEDURES" OF THIS MANUAL WHEN CARRYING OUT THE PROCEDURES DESCRIBED IN THIS MANUAL.

### 1.2 ACCESS TO ROOF



**WARNING:**  
DO NOT WALK ON THE BODY ROOF (1) OR TAILGATE TOP COVER PANELS (2).

Components mounted on the roof of the body are located in positions accessible from the side of the vehicle using a suitable access platform, which should be used in compliance with all prevailing Health and Safety Regulations, Workshop Regulations and Workshop Codes of Practice.

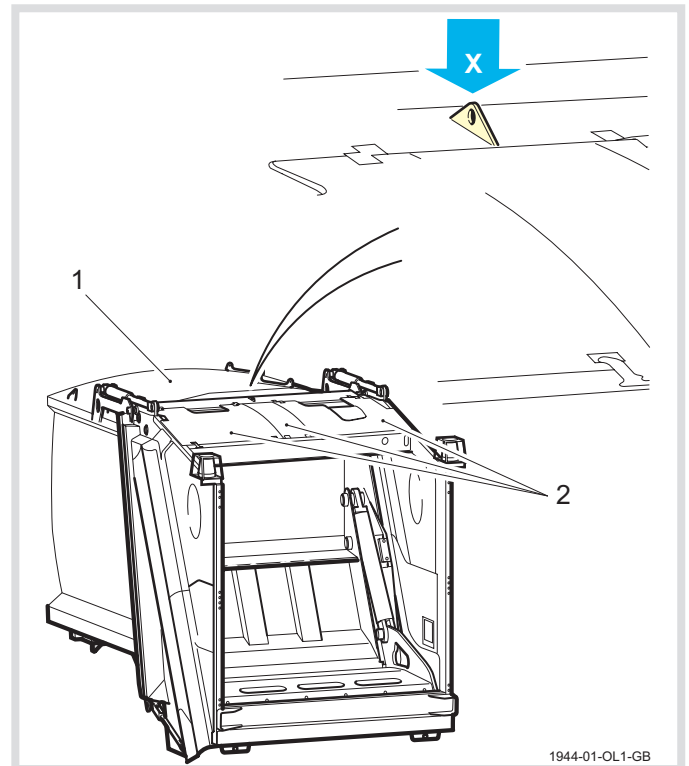
For maintenance purposes, maintenance personnel may remove the tailgate roof panels and work on the roof of the tailgate providing they wear a safety harness connected to the tailgate Safety Harness Attachment Lug (X).

Safety Harness Attachment Lugs (SHAL) are designed for the use of Ros Roca S.A. manufacturing, production and service personnel when working at height on vehicle roofs in line with risk assessments and safe systems of work conducted at Ros Roca S.A. Customers should ensure that they conduct risk assessments and any subsequent safe systems of work based on their own activities.



**WARNING:**  
SAFETY HARNESS ATTACHMENT LUGS (SHAL) SHOULD NOT UNDER ANY CIRCUMSTANCES BE USED AS LIFTING POINTS TO RAISE THE BODY.

If in doubt, contact your local Health and Safety Officer.



**Fig. 1-1 Tailgate safety harness attachment lug (SHAL)**

## 1.3 IMMOBILISING THE VEHICLE PRIOR TO SERVICE PROCEDURES

Before commencing any service procedure, the refuse collection vehicle must be immobilised as follows:

1. Stand the vehicle on clean, level and stable ground.
2. Engage the parking brakes.
3. Select Neutral 'N' on the vehicle transmission.
4. Stop the engine.
5. Chock the wheels.
6. Check that the tailgate is in the normal lowered position, locked to the body.
7. Turn the Body master switch to Off position.
8. Switch ignition off. Remove and retain the key.
9. Secure a sign reading 'DO NOT START OR OPERATE VEHICLE' to the steering wheel.
10. Lock all cab doors. Remove and retain the keys.
11. If necessary isolate or disconnect the battery. (Refer to chassis manufacturer's service information for procedures).

## CONTENTS

<b>2</b>	<b>SAFETY PRECAUTIONS AND PROCEDURES .....</b>	<b>2-3</b>
2.1	INTRODUCTION.....	2-3
2.2	SAFETY SYMBOL, WARNINGS, CAUTIONS AND NOTES.....	2-3
2.3	PERSONAL HYGIENE.....	2-4
2.4	PROTECTIVE CLOTHING.....	2-4
2.5	CLEANING A VEHICLE.....	2-5
2.5.1	PRESSURE WASHING .....	2-5
2.6	PRECAUTIONS – WORKSHOP PROCEDURES AND PRACTICES .....	2-5
2.6.1	RESPONSIBLE TECHNICIAN, THE KEY HOLDER.....	2-5
2.6.2	IMMOBILISING THE VEHICLE .....	2-5
2.6.3	GENERAL WORKSHOP PRECAUTIONS .....	2-6
2.6.4	ENVIRONMENTAL PROTECTION PRECAUTIONS.....	2-6
2.6.5	MANUAL HANDLING AND MOVEMENT OF LOADS .....	2-6
2.6.6	CONTACT WITH PLASTIC MATERIAL RESIDUES AFTER FIRES .....	2-6
2.6.7	GENERAL ELECTRICAL PRECAUTIONS .....	2-7
2.6.8	DISCONNECTION AND RECONNECTION OF ELECTRICAL COMPONENTS .....	2-7
2.7	WELDING ON OR NEAR THE VEHICLE .....	2-7
2.8	HYDRAULIC SYSTEMS .....	2-8
2.8.1	HYDRAULIC OIL AND FILTERS .....	2-8
2.9	HOT COMPONENTS.....	2-8
2.10	MOVING OR ROTATING PARTS.....	2-9
2.11	FASTENERS.....	2-9
2.12	RETURNING THE VEHICLE TO SERVICE .....	2-9
2.13	FIRST AID AND EMERGENCY TREATMENT .....	2-9
2.13.1	WORKSHOP FIRST AID EQUIPMENT .....	2-9
2.13.2	CUTS AND WOUNDS.....	2-9
2.13.3	BURNS .....	2-9

THIS PAGE INTENTIONALLY LEFT BLANK

## 2 SAFETY PRECAUTIONS AND PROCEDURES

### 2.1 INTRODUCTION

This chapter states the precautions to be observed by personnel carrying out scheduled maintenance operations on an Olympus ART Refuse Collection Vehicle. When operating the vehicle, personnel should observe the safety precautions and procedures contained in Chapter 2 "Safety precautions" of the Olympus ART Operator's Handbook.

It is everyone's responsibility to make sure that they and their colleagues work safely. The intention of these guidelines is to draw to the attention of Service Technicians the importance of safety issues and to highlight known hazards. Read this chapter very carefully and use the procedures as a guide to safe working practice at all times. If necessary, discuss any points that are not clear with your Safety Officer or Manager.

The guidelines contained in this manual are not definitive and do not override nor replace local rules and instructions. There may be additional ways to make sure that operator and maintenance organisations work safely and you must also follow any local rules and safe working practices that may apply.

The information in this chapter should be used in conjunction with the appropriate chapters of the workshop manuals or other service information applicable to the vehicle chassis and any ancillary equipment such as lifting devices, etc. fitted to the vehicle.

### 2.2 SAFETY SYMBOL, WARNINGS, CAUTIONS AND NOTES

The following Safety Symbol is used throughout this manual to indicate information that is essential to Health and Safety.



The symbol applies to ALL information contained in this chapter.

**All Safety Information MUST be strictly adhered to.**

#### Warnings



**WARNINGS:  
A WARNING IS PRINTED IN THIS STYLE.**

**IT REFERS TO ANY OPERATION OR EVENT THAT CAN BE HAZARDOUS TO HEALTH OR LEAD TO INJURY IF NOT PERFORMED CORRECTLY.**



**Cautions:  
A Caution is printed in this style.**

**It refers to any operation or event that can cause damage to equipment if not performed correctly.**

#### Notes



**A Note is printed in this style. It refers to essential information about any operation or event that is not a WARNING or a Caution.**

## 2.3 PERSONAL HYGIENE

Personal hygiene is important at all times, particularly for those working in the waste disposal environment where rats can breed and spread diseases such as **LEPTOSPIROSIS**.

**Leptospirosis**, or Weil's disease, is a form of jaundice with early stages similar to influenza. The infection sometimes enters the body through breaks in the skin, so thorough first aid treatment of all wounds is important.

**Leptospirosis** is carried in the urine of rats. If you have the slightest suspicion that you are working in a contaminated environment follow these rules rigidly:

1. Wear protective clothing at all times.
2. Do not allow the inside of protective clothing to become soiled.
3. After removing protective clothing wash it thoroughly and allow to dry.
4. Wash hands and forearms thoroughly after working and especially before eating and drinking.
5. Wash every scratch, graze or cut of the skin, treat it with antiseptic, and cover it with a sterile dressing, e.g. plaster. This applies to ALL wounds; not just those suffered at work.
6. If the First-Aid kit requires replenishing, report it to your supervisor.
7. With any injury that is more than a scratch or slight cut, consult your doctor and mention the type of work you do.
8. Do not rub your mouth, nose or eyes when working.
9. At all visits to your doctor, mention the type of work you do and the environment you work under.
10. Apply barrier creams before each work period.



Preparations containing lanolin replace the natural skin oils which can be removed when washing.

11. Do not wash skin with fuels, thinners or solvents.
12. Obtain medical advice if skin disorders develop.

## 2.4 PROTECTIVE CLOTHING

1. While operating or carrying out maintenance on a Refuse Collection Vehicle, wear protective clothing complying with Health and Safety Legislation and Standards applicable to the country in which the vehicle is being used, including:
  - A boiler suit, or a two piece protective overall, not too loosely fitting and of a distinctive colour.
  - Protective boots or shoes with steel toe caps and in-soles.
  - A hard protective hat.
  - Protective gloves.
  - Protective spectacles.
  - Goggles and particle mask if working in dusty conditions.
  - Reflective armbands or jacket when working on the road.
2. Wear impervious gloves where there is a risk of contact with hydraulic system oil.
3. Wear eye protection (chemical goggles or face shields) where there is a risk of eye contact.
4. Avoid contaminating clothes and protective equipment with oil:
  - Do not put oily rags in pockets.
  - Clean overalls regularly.
  - Discard unwashable or oil impregnated clothing.

## 2.5 CLEANING A VEHICLE

1. Wear protective clothing, gloves and goggles when you clean a Refuse Collection Body loose debris may be ejected from the body and tailgate.
2. Never enter the body or tailgate unless the 'Body master' switch is in the 'Off' position (see Refuse Collection Vehicle Operator's Handbook, Chapter 4, "Operator's Controls"), the engine is stopped, the ignition key is removed, all cab doors are locked with the keys removed and you are in possession of all the removed keys, and any spare keys.
3. Be aware of dangerous refuse such as glass and hypodermic needles.
4. Do not climb into the tailgate to clean debris unless you know and can work to the safe working procedures given in this Manual.
5. Never clean the seal area unless the tailgate is fully propped.

### 2.5.1 PRESSURE WASHING

1. High-pressure water jets can seriously damage electrical equipment. When pressure washing do not allow the jet nozzle to approach closer than 1 metre.
2. Whenever possible do not direct the jet straight at components, but aim across them.
3. Do not direct the jet at electrical components.



**WARNING:**  
**DO NOT DIRECT PRESSURE WASHER AT A PERSON. HIGH-PRESSURE WATER JETS CAN CAUSE INJURY.**



**Caution:**  
**High-pressure water jets can cause severe damage to electrical equipment.**

## 2.6 PRECAUTIONS – WORKSHOP PROCEDURES AND PRACTICES

### 2.6.1 RESPONSIBLE TECHNICIAN, THE KEY HOLDER

1. One person, the Key Holder, must be responsible for the safety of all personnel involved when a vehicle is undergoing any form of maintenance work. Normally the key holder will be the person who is working on the vehicle.
2. The Key Holder is responsible for immobilising the vehicle.
3. Any other person who needs access to the vehicle for whatever reason must inform the key holder of their intentions.
4. On completion of work all personnel must inform the key holder that they are leaving the vehicle.
5. If the key holder leaves the vehicle for any reason, he must nominate a new key holder and make sure that all affected personnel know who the new key holder is.
6. The key holder must make sure that when the engine is run, all personnel are clear of the body until the engine is stopped and the ignition key is removed with the cab door locked.

### 2.6.2 IMMOBILISING THE VEHICLE

To immobilise the vehicle the Key Holder must:

1. Turn the 'Body master' switch to the 'Off' position (see Refuse Collection Vehicle Operator's Handbook, Chapter 4, "Operator's Controls").
2. Turn the ignition switch to off and remove the key and any spare keys.
3. Secure a sign reading "DO NOT START OR OPERATE VEHICLE" to the steering wheel.
4. Lock all the cab doors and remove the key and any spare keys.
5. Retain all the keys while work is in progress.
6. If appropriate, turn the vehicle's battery isolation switch, if fitted, to off or disconnect the vehicle's battery.

# SAFETY PRECAUTIONS AND PROCEDURES

## 2.6.3 GENERAL WORKSHOP PRECAUTIONS

1. Chock the vehicle wheels at all times when maintenance work is in progress (Refer to chassis manufacturer's workshop manual for information and instructions).
2. Personnel must not climb on to the roof of the vehicle.
3. Personnel must not enter the body or tailgate hopper unless the engine is stopped, the cab door is locked and the key holder has been advised of work in progress.
4. When working on the roof of the tailgate, an approved safety harness MUST be worn and fitted to the vehicle safety harness attachment point.
5. Use exhaust gas extraction hoses and equipment when running engines within an enclosed working area.
6. Where practicable, degrease components prior to handling.
7. Do not work under the vehicle when supported only by a jack; always use safety stands.

## 2.6.4 ENVIRONMENTAL PROTECTION PRECAUTIONS

1. Contact the Local Government Authority or Environmental Protection Agency for advice or disposal facilities.
2. Do not pour used oil on to the ground, down drains, sewers or into water courses.
3. Do not burn used hydraulic oil, rubbers, plastics or polyurethane foams.
4. Dispose of used oil through authorized waste disposal contractors.

## 2.6.5 MANUAL HANDLING AND MOVEMENT OF LOADS

Many of the vehicle body parts are either extremely heavy and/or complicated in shape and size.

To avoid personal injury or damage to equipment when you work on the vehicle you must obey the following rules.

1. Use correct methods when lifting or carrying items by hand.
2. Use suitable lifting equipment and methods when lifting or moving heavy or large objects.
3. Make sure that lifting equipment has been inspected and is certified fit for use.
4. Make sure that safety pins, props and stands are positioned correctly before the start of work.
5. Never land any item of equipment in a walkway or clear zone.
6. Keep the work area clean and free from obstruction.
7. Keep any personnel not involved with the procedure at a safe distance.

## 2.6.6 CONTACT WITH PLASTIC MATERIAL RESIDUES AFTER FIRES

Most modern plastic materials release toxic gasses when they burn. The burnt residue can contain toxic and corrosive material and liquids, especially after contact with water or in humid atmospheres.

When work is done on any part of the vehicle that is contaminated with burnt or degraded plastics, use the following precautions:

1. Do not touch burnt or degraded materials.
2. Let all materials cool down and dry before work starts.
3. Wear protective clothing, with PVC or Neoprene protective gloves. Breathing apparatus may be needed in confined spaces.
4. Treat contaminated parts, clothing and cleaning materials as toxic waste and dispose of them in accordance with local and national regulations.



## 2.6.7 GENERAL ELECTRICAL PRECAUTIONS

1. Always ensure correct polarity when making cable connections.
2. Before using any test equipment always read the manufacturer's instructions.
3. Do not pierce any electrical leads or looms with test probes, etc.
4. Ensure that no arcing takes place between electrical connections.
5. Always ensure that electrical components, wiring looms and harnesses are correctly fitted and connected. Incorrect fitting, incorrect connections, additions or alterations to an electrical system could create a risk of injury and fire.
6. Always remove all personal jewellery, e.g. rings, watches, chains etc., before commencing work on the electrical system even if the battery is disconnected.
7. Never guess the polarity of connections or wiring, use a voltmeter and refer to circuit diagrams.
8. Use good quality electrical test meters when carrying out tests. A poor meter can affect the results you obtain and may damage electronic components.
9. Only use slave battery sets incorporating an isolator switch to start the vehicle.
10. Only use batteries with a combined total voltage of 24V, or a vehicle with a 24V electrical system. Failure to do so will result in extensive damage to the equipment.

## 2.6.8 DISCONNECTION AND RECONNECTION OF ELECTRICAL COMPONENTS

1. Note the position of all the connectors before they are removed.
2. When reconnecting components, ensure connectors are refitted in the same positions as noted on removal. If in doubt refer to the relevant circuit wiring diagram.
3. If renewing halogen type bulbs do not touch the bulb glass with the fingers. If necessary, wipe the glass clean using a cloth moistened in denatured alcohol (methylated spirit).
4. If renewing fuses, always switch off the affected circuit first and fit a new fuse of the correct ampere rating, (refer to label on fuse box cover or fuse list in vehicle Operator's Handbook or Workshop Manual if in doubt). If the new fuse also fails, investigate the cause and rectify.



### Caution:

**DO NOT use a fuse with a higher ampere rating than specified, and under no circumstances bridge the fuse terminals with anything other than a fuse. Non-observance of the latter may cause components to be damaged and/or wiring to overheat, leading to a fire.**

## 2.7 WELDING ON OR NEAR THE VEHICLE

Exercise extreme care when carrying out welding operations. Electric arc welding will seriously damage any electronic items fitted to the vehicle.

1. Always stop the engine and disconnect the batteries and electronic units in the approved sequence (Refer to chassis manufacturer's workshop manual for information and instructions) before carrying out any welding repairs.
2. Always have a serviceable fire extinguisher close at hand.
3. Wear eye protection to protect eyes from welding flash.
  - Erect protective screens to protect other personnel from the dangers of the area.

## 2.8 HYDRAULIC SYSTEMS

Vehicle hydraulic systems operate at high pressures, some parts of the system are under pressure even whilst the vehicle is shut down. Use caution when working on the system and its components.

1. Before dismantling or breaking into an hydraulic system, shut off the pressurised supply at a remote point and then depressurise the system.
2. When disconnecting hydraulic hose connections:
  - Wear a full face visor while loosening the pipe nuts.
  - Cover the connection with a cloth while loosening the pipe nuts to prevent pressurised oil spraying from connection.
3. When working on the hydraulic and pneumatic systems, it is important to ensure maximum cleanliness:
4. Always clean the area around a connection before dismantling a joint.
5. Plug any open connections as soon as possible.
6. Use only lint-free cloths.
7. Wherever possible, avoid using compressed air for cleaning components.

## 2.8.1 HYDRAULIC OIL AND FILTERS

Long term exposure of the skin to hydraulic oil can cause problems such as dermatitis. Waste oil is a known carcinogenic material and both air and oil filters collect material that can be hazardous to health. To reduce risk to you, other people and the environment work to the guidelines given below.

1. Always obey local and national legislation about collection and disposal of hydraulic oil.
2. Collect and dispose of hydraulic oil carefully. Contact the point of sale, supplier or local authority for information about collection depots.
3. Filter inserts and cartridges are hazardous waste materials and must be disposed of correctly. Follow instructions issued by the relevant local authority for disposal. Wear a filter mask when you work on contaminated filters.
4. Avoid lengthy, excessive or repeated skin contact with hydraulic oil. Protect exposed skin with suitable barrier agent or protective clothing.
5. Use an approved cleaning agent to clean ALL areas of skin that have come into contact with diesel fuel, lubricating oils, hydraulic oil and lubricants.
6. Do not wear oil soaked garments next to the skin.

## 2.9 HOT COMPONENTS

Many vehicle components, i.e. the engine, gearbox, brakes etc. operate at temperatures high enough to cause skin burns to personnel coming into contact with a recently operated engine unit. Exhaust systems, turbochargers, catalytic converters and their components can reach extremely high temperatures.

1. To avoid the risk of skin burns, allow the vehicle component to cool before carrying out any maintenance tasks.
2. Take care to avoid contact with hot components, particularly exhaust system components, on a vehicle when carrying out tests with the engine running.

## 2.10 MOVING OR ROTATING PARTS

There are risks of serious injury due to entanglement or collision with rotating parts such as fans, engine components or propeller shafts.

1. All personnel must be aware of the risks and take precautions to distance themselves from moving or rotating parts at all times.
2. All guards are to be fastened in position when the vehicle is operational.

## 2.11 FASTENERS

1. When assembling/refitting components using fasteners such as torque loaded bolts, nyloc nuts or split pins etc., always use new fasteners. Do not re-use old fasteners except where specifically mentioned in the text.

## 2.12 RETURNING THE VEHICLE TO SERVICE

1. At the end of any maintenance work and before returning the vehicle to service, ensure that:
  - All tools, parts materials and debris are removed from the vehicle.
  - Any protective guards removed for access are replaced and correctly secured.
  - The vehicle has completed a Daily safety check as described in Chapter 3 of this manual.

## 2.13 FIRST AID AND EMERGENCY TREATMENT

### 2.13.1 WORKSHOP FIRST AID EQUIPMENT

1. The workshop must be equipped with First Aid equipment complying with local legislation.
2. Familiarise yourself with the equipment, procedures and practices.
3. If the First-Aid kit requires replenishing report it to your supervisor.

### 2.13.2 CUTS AND WOUNDS

1. Treat open cuts and wounds immediately.
2. Wash every scratch, graze or cut of the skin, treat it with antiseptic, and cover it with a sterile dressing, e.g. plaster. This applies to ALL wounds; not just those suffered at work.

### 2.13.3 BURNS

In the event of a skin burn, immediately administer the following emergency treatment:

1. Do not:
  - Remove any clothing over the burn.
  - Burst any blisters.
  - Apply any cream or oily preparation to the burned area.
2. Do:
  - Run cold, clean water over the affected area.
  - Cover the burned area, including any clothing, with a dry, clean, sterile dressing.
  - Consult a medical centre or doctor as soon as possible.

THIS PAGE INTENTIONALLY LEFT BLANK

# CONTENTS

3	DAILY CHECKS.....	3-3
3.1	DAILY SAFETY CHECKS .....	3-3
3.2	WARNING LABELS.....	3-11

THIS PAGE INTENTIONALLY LEFT BLANK

## 3 DAILY CHECKS

It is important that your machine is kept in good working order.

The following Daily Safety Checks must be carried out on an Olympus ART Refuse Collection Vehicle to confirm the correct operation of the machine, its controls, safety circuits and interlocks, in addition to checks specified in the chassis manufacturer's and lifting device manufacturer's service information, before it commences service.

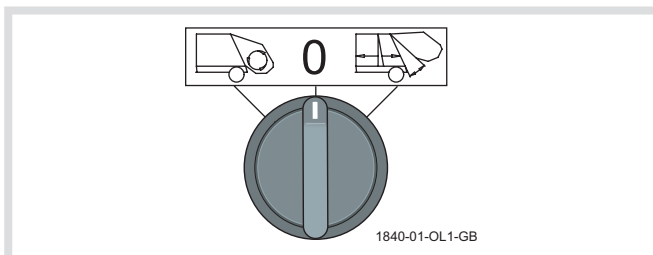
The same checks should also be carried out by service personnel whenever scheduled maintenance service procedures and inspections are carried out.

Make sure that there is no mechanical damage or wear evident in the refuse mechanism, especially in the pivoting and locking of the tailgate to the body.

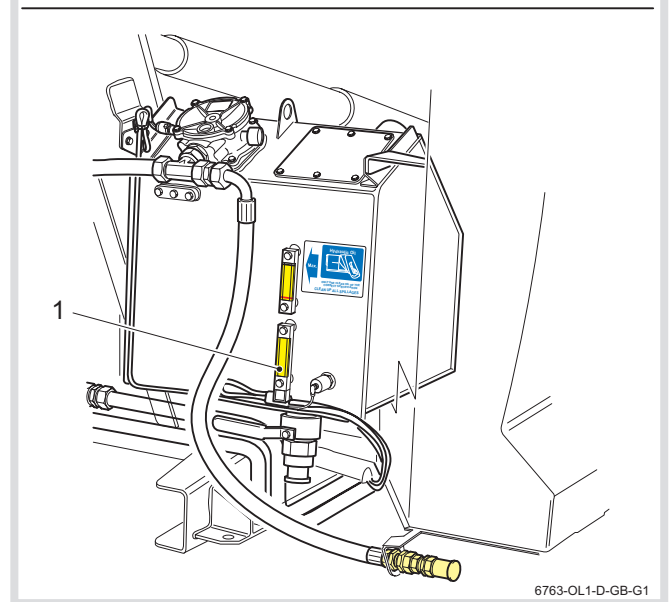
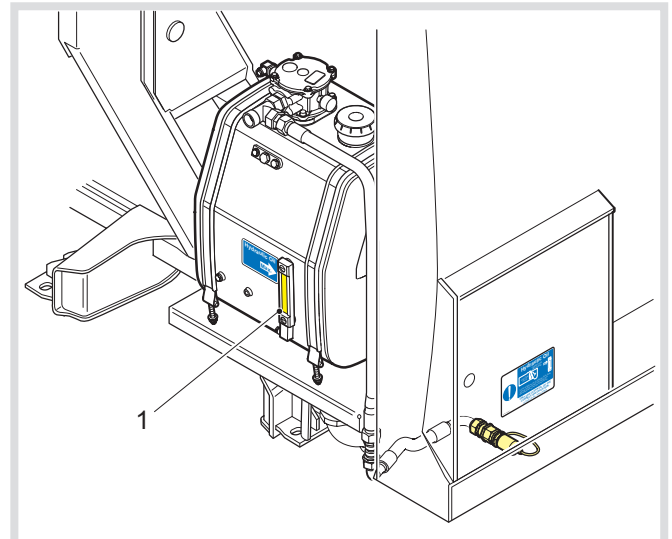
Any problems must be reported to supervision immediately.

### 3.1 DAILY SAFETY CHECKS

1. Stand the vehicle on clean, level and stable ground with sufficient clearance to allow for the tailgate and lifting device, if fitted, to be fully raised.
2. Engage the parking brakes.
3. Select Neutral 'N' on the vehicle transmission.
4. Stop the engine.
5. Turn the 'Body master' switch to 'Off'.



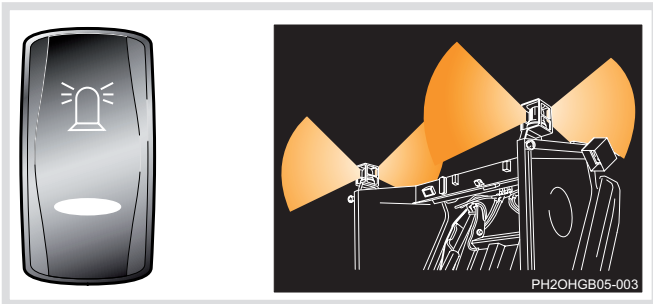
6. Switch the ignition off. Remove and retain the key.
7. Lock all cab doors. Remove and retain the keys.
8. Walk around the Refuse Collection Vehicle and:
  - Make sure that there is no refuse, paper or flammable materials near the engine or exhaust. These could cause a fire when the engine is started. If necessary, tilt the cab (see Chassis Manufacturer's Operator's Handbook) to make a thorough inspection.
  - Visually check level of oil in hydraulic oil tank. The float in the bottom sight glass should be at the top of the sight glass. If the level is below this report to supervision immediately and do not proceed any further with the daily inspection.



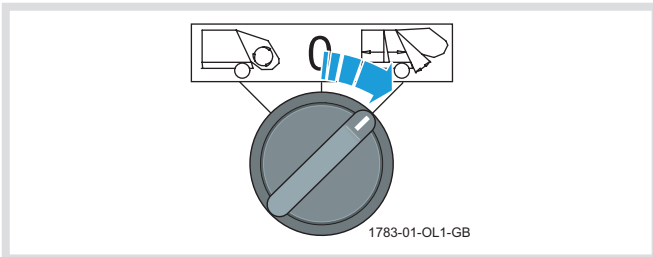
- Visually check the level of the sight glass. If the level is below the minimum level (1) report this immediately to the workshop supervisor. Do not proceed any further with the daily inspection until the oil level is rectified.
  - Visually check for obvious damage to lights, warning beacons, reflectors and lenses and bodywork.
  - Check that all marking plates and warning instruction labels are complete, clean, clearly visible and readable (see "3.2 Warning labels" on page 3-11).
  - Visually check underneath the Refuse Collection Vehicle for evidence of hydraulic oil leaks from the body system hydraulic pipes.
  - Visually check the electrical harnesses and connections, hoses, pipes and other components for obvious signs of defects.
9. Enter the Refuse Collection Vehicle cab.
  10. Check that all the emergency tools, equipment and fire extinguisher are present.
  11. Check that the first aid kit is complete.

# DAILY CHECKS

12. Switch the ignition on only, do not start the engine.
13. Switch on all the vehicle lights, including fog lights (if fitted).
  - Check that the lights and their associated warning lights operate to specification.
14. Operate the foot brake.
  - Check that the brake lights operate to specification.
15. Switch on the warning beacons.
  - Check that the warning beacons and their associated warning lights operate correctly.

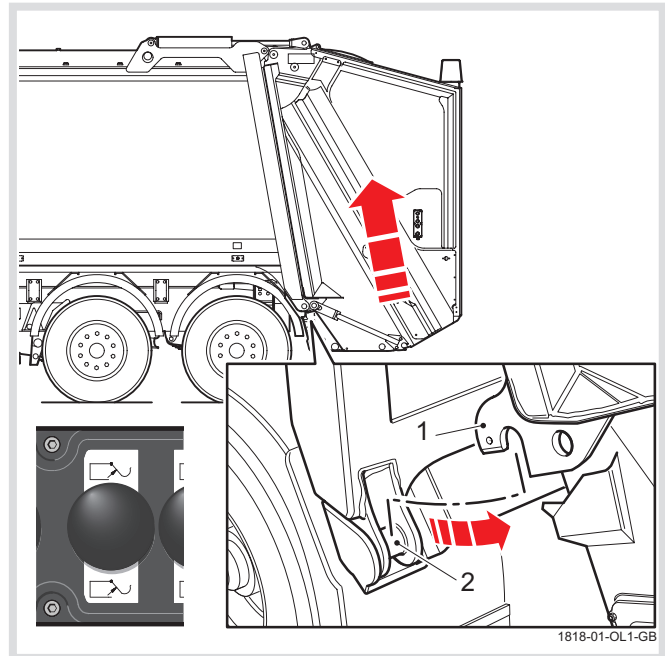


16. Make sure that the parking brake is applied and Neutral 'N' is selected.
17. Start the engine, check the warning panels and instrumentation for any indications of system malfunctions.
  - The 'Low Air Pressure' warning buzzers should not be sounding.
18. Turn the 'Body master' switch to 'Tip'.



**WARNING:**  
MAKE SURE THAT YOU KNOW THE HEIGHT OF YOUR VEHICLE WITH THE TAILGATE AND LIFTING DEVICE, IF FITTED, RAISED.

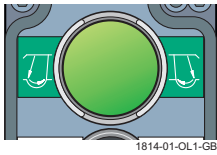
19. Press and hold the Tailgate raise push-button until the tailgate is just out of its locks and then release the push-button.
  - Tailgate should raise smoothly until it is out of the locks (hooks (1) should have disengaged from the pins (2)).



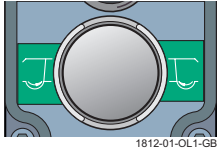
**WARNING:**  
COMPACTION MECHANISM MAY OPERATE.  
MAKE SURE THAT THE TAILGATE AREA IS CLEAR OF PERSONNEL.



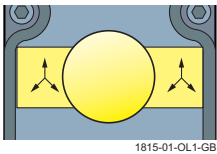
20. On each compaction mechanism control panel, press in turn the:



'Start pack cycle' push-button.



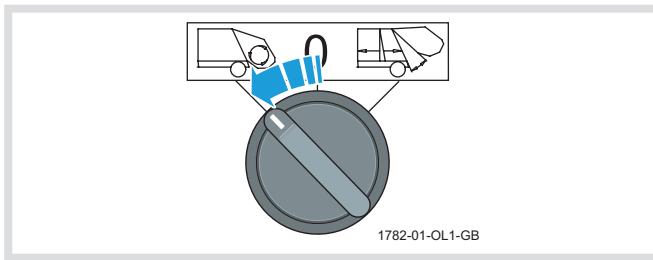
'Short cycle' push-button.



'Rescue' push-button.

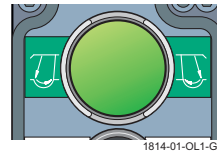
- Compaction mechanism should not operate.

21. Turn the 'Body master' switch to 'Run'.

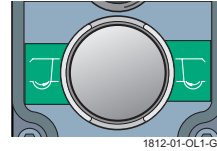


**WARNING:**  
COMPACTION MECHANISM MAY OPERATE.  
MAKE SURE THAT THE TAILGATE AREA IS  
CLEAR OF PERSONNEL.

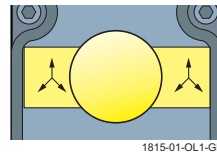
22. On each compaction mechanism control panel, press in turn the:



'Start pack cycle' push-button.



'Short cycle' push-button.



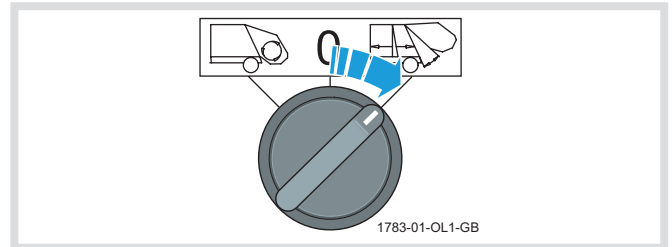
'Rescue' push-button.

- Compaction mechanism should not operate.



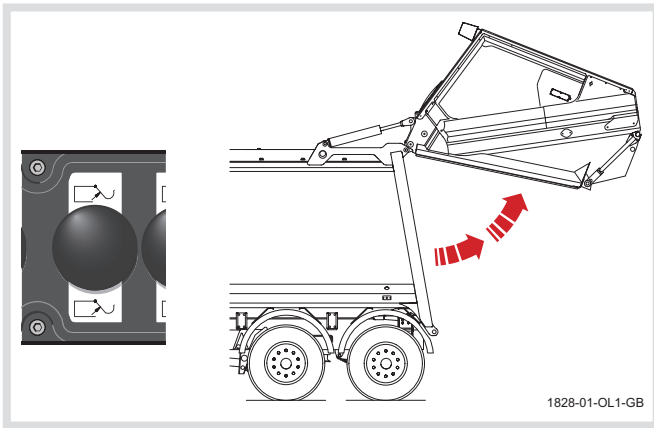
**WARNING:**  
MAKE SURE THAT YOU KNOW THE HEIGHT  
OF YOUR VEHICLE WITH THE TAILGATE  
AND LIFTING DEVICE, IF FITTED, RAISED.

23. Turn the 'Body master' switch to 'Tip'.

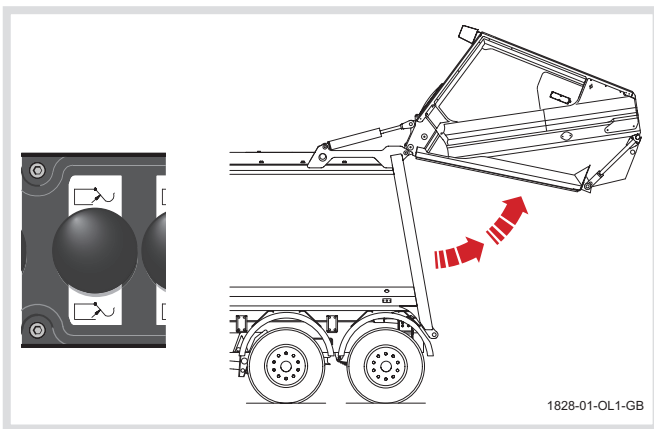


# DAILY CHECKS

24. Press and hold the 'Tailgate raise' push-button.

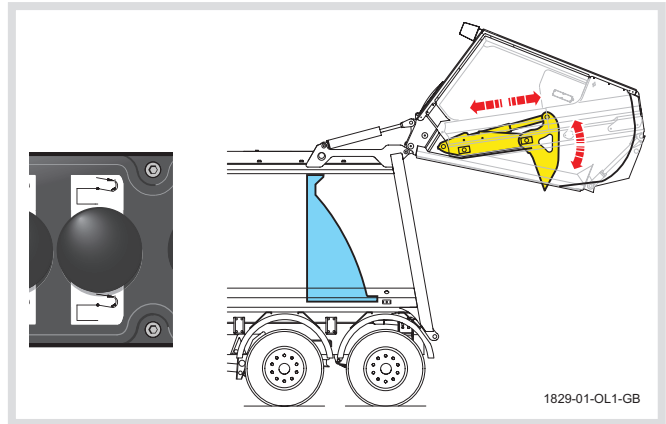


- Tailgate should rotate smoothly upwards about the hinge pins.
25. While tailgate is rising, release the 'Tailgate raise' push-button before it reaches its fully raised position.
- Tailgate should stop rising immediately the switch is released.
  - Tailgate should not lower.
26. Press and hold the 'Tailgate raise' push-button until the tailgate is fully raised and then release the push-button.

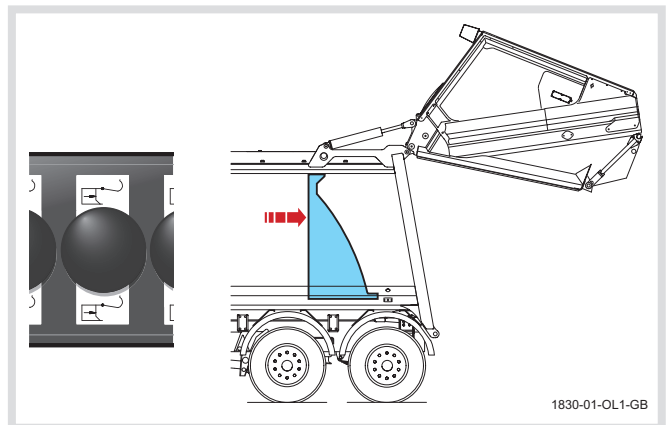


- Tailgate should resume rotating upwards about the hinge pins until fully raised when it should stop without noticeable judder.

27. Press and hold the 'Tailgate tip clear' push-button until the compaction mechanism has completed one full cycle, then release the push-button.

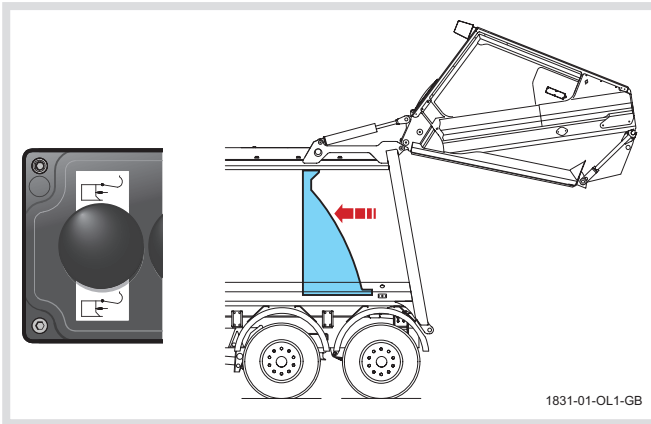


- The packer plate should open, the carriage plate should move down, the packer plate should close and then the carriage plate should move up in one continuous sequence until fully packed.
28. Press the 'Ejector plate eject' push-button. Release the push-button when the ejection plate has reached the end of its travel.



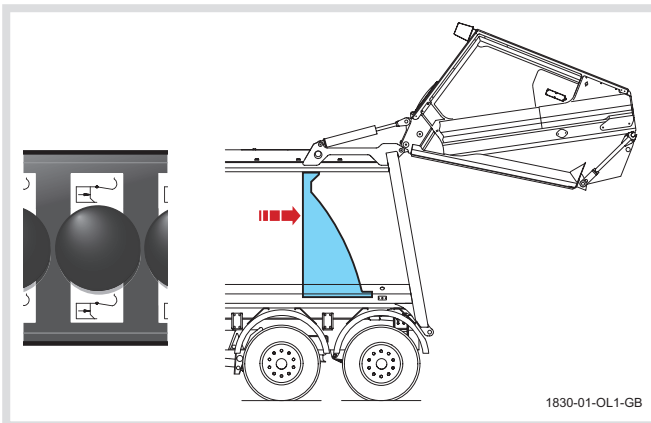
- Ejection plate should eject smoothly without judder.

29. Press the 'Ejector plate retract' push-button. Release the push-button when the ejection plate has reached the end of its travel.



- Ejection plate should retract smoothly without judder.

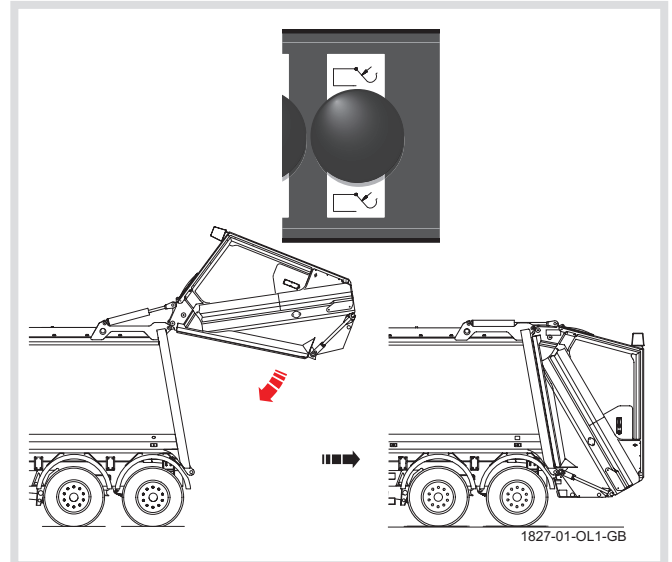
30. Press the 'Ejector plate eject' push-button. Release the push-button when the ejection plate has reached the end of its travel.



**WARNING:**  
MAKE SURE THAT THE TAILGATE AREA IS CLEAR OF PERSONNEL.

31. Press the 'Tailgate lower' push-button.

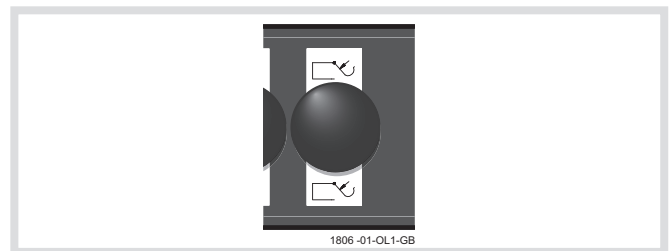
- Tailgate should lower smoothly without judder.



32. While tailgate is lowering, release the push-button.

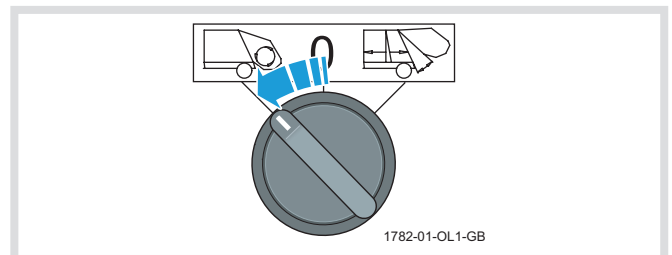
- Tailgate should stop lowering immediately the push-button is released.
- Tailgate should not lower.

33. Press the 'Tailgate lower' push-button until the tailgate engages locks and then release the push-button.



- Tailgate should rotate smoothly downwards about the hinge pins until it engages face of body, then lower into locks.

34. Turn the 'Body master' switch to 'Run'.

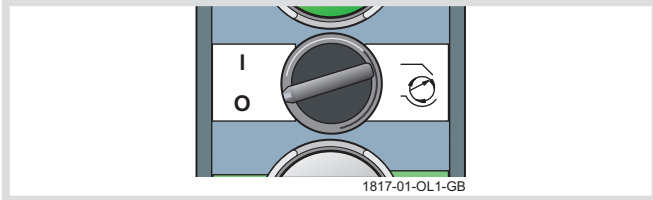


# DAILY CHECKS

For each compaction mechanism control panel, carry out the following operations (35 - 37):

35. Check that pack cycle operates correctly.

Check that the 'Intermittent/Continuous cycle' switch is at Intermittent (O).



## Position I: Continuous cycle mode

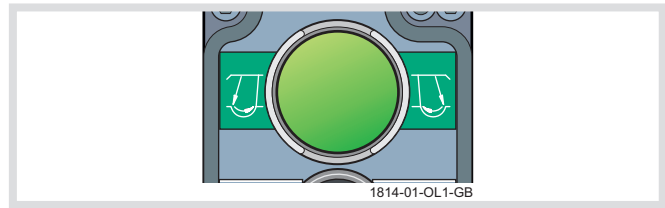
When the 'Start pack cycle' push-button is operated, the compaction mechanism operates continuously until one of the following happens:

- The vehicle hand brake is released and/or a vehicle gear is selected (dependent on vehicle chassis), when the compaction mechanism will complete the cycle and stop in the fully packed position.
- The 'Intermittent/Continuous cycle' switch is turned to position 0 intermittent cycle mode when the compaction mechanism will complete the cycle and stop in the fully packed position.
- An 'Emergency stop' push-button is operated, when the compaction mechanism will stop immediately.

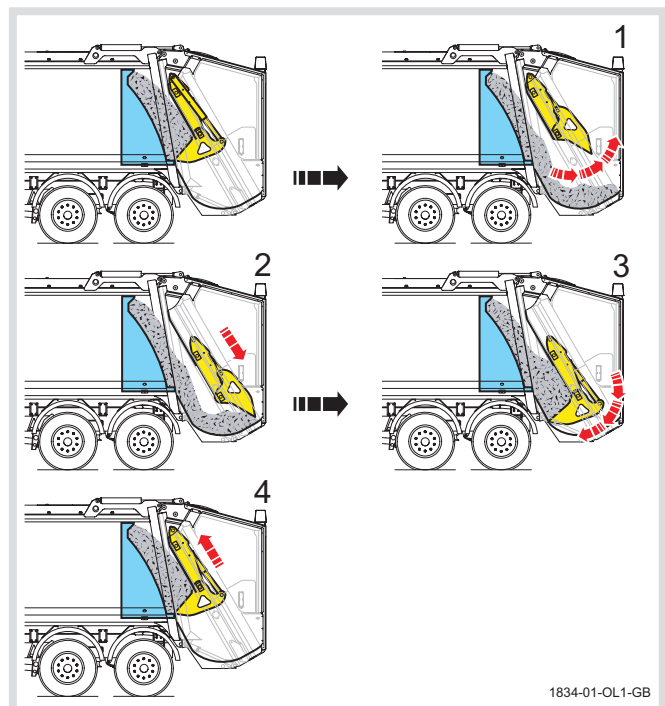
## Position O: Intermittent cycle mode

When the 'Start pack cycle' push-button is operated, the compaction mechanism completes a single pack cycle and stops in the fully packed position.

Press and release the 'Start pack cycle' push-button.

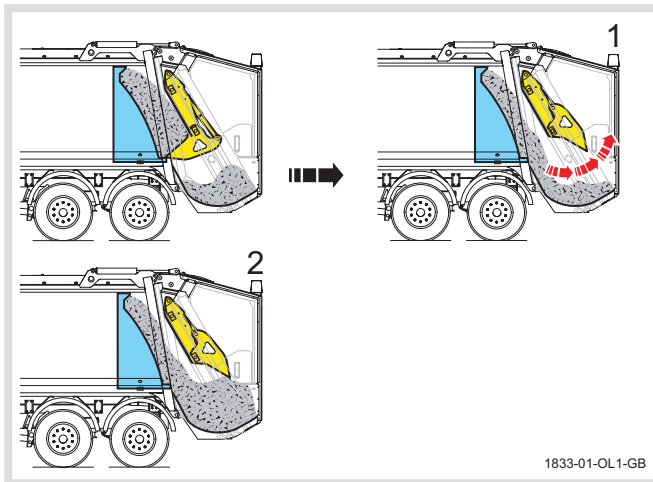


- Compaction mechanism packer plate should open (1), carriage plate and packer plate should move downwards (2), packer plate should close (3), carriage plate and packer plate should move upwards (4) and automatically stop in the packed position.



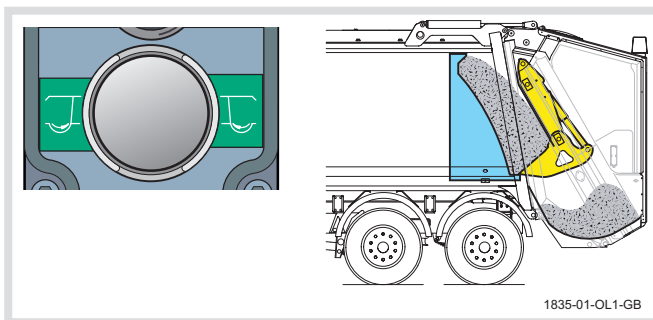
36. Press and release the 'Start pack cycle' push-button.

- Packer plate should open (1), carriage plate and packer plate should move downwards (2).

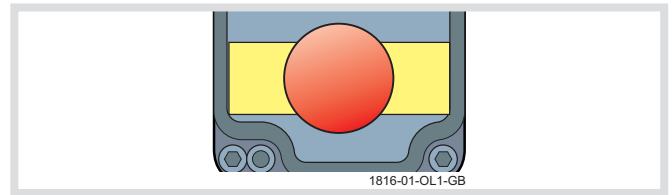


37. While the packer plate is moving downwards press and release the 'Short cycle' push-button.

- The carriage plate should stop, the packer plate should automatically close and then the carriage plate and packer plate should move upwards until the compaction mechanism is fully packed when it should stop.

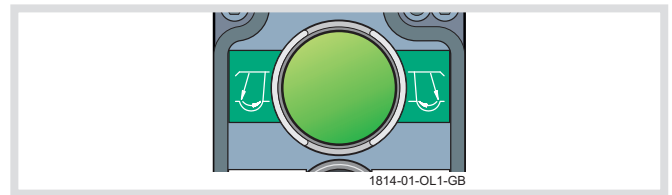


For each Emergency Stop Push-button:

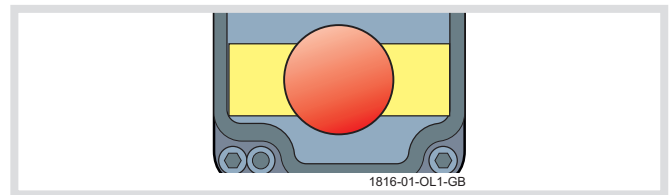


Carry out the following operations (38 - 43):

38. Press a 'Start pack cycle' push-button, to operate the compaction mechanism.



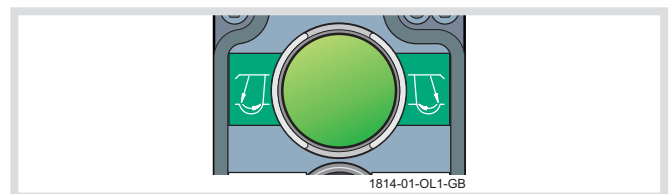
While the mechanism is operating, press the 'Emergency stop' push-button.



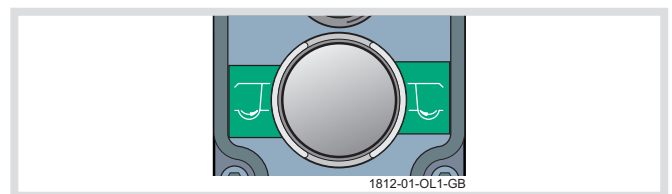
- Compaction mechanism should stop immediately.

39. On each compaction mechanism control panel, press in turn the:

'Start pack cycle' push-button.



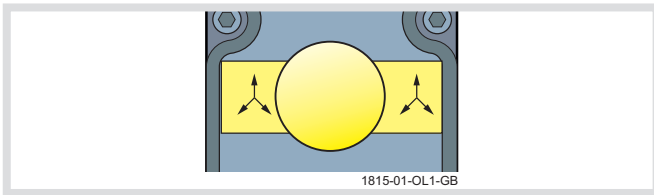
'Short cycle' push-button.



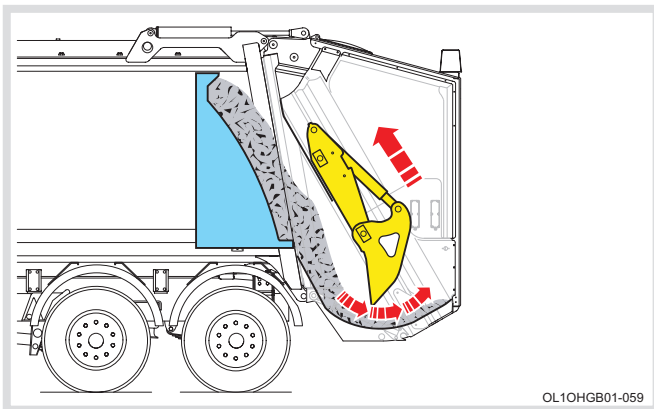
- Compaction mechanism **should not operate**.

# DAILY CHECKS

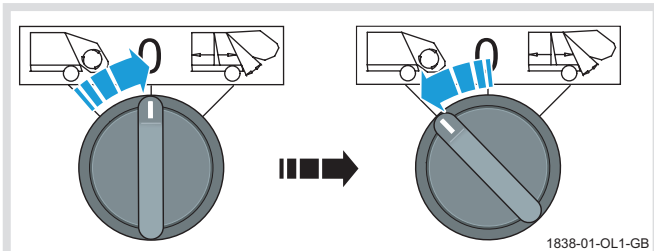
'Rescue' push-button.



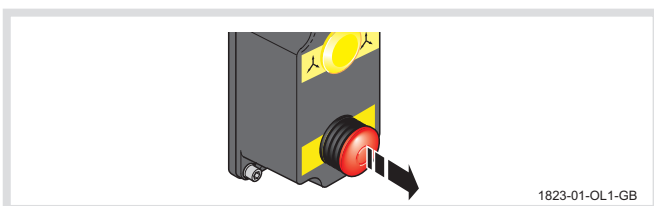
- Packer plate should open and carriage plate move upwards simultaneously until it is fully open and fully unpacked.



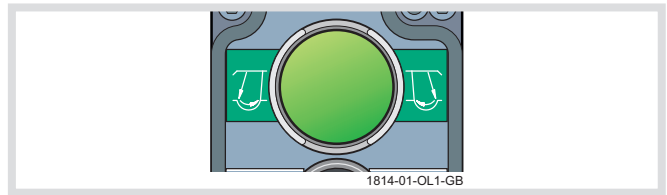
40. Turn the 'Body master' switch to 'Off' and then 'On' again.



41. Pull the 'Emergency stop' push-button outwards.



42. Press the 'Start pack cycle' push-button.



- Check that the compaction mechanism restarts and operates to specification.

43. Check level of oil in hydraulic oil tank and top up if required (See "4.1 To check hydraulic system oil level" on page 4-3).

## 3.2 WARNING LABELS

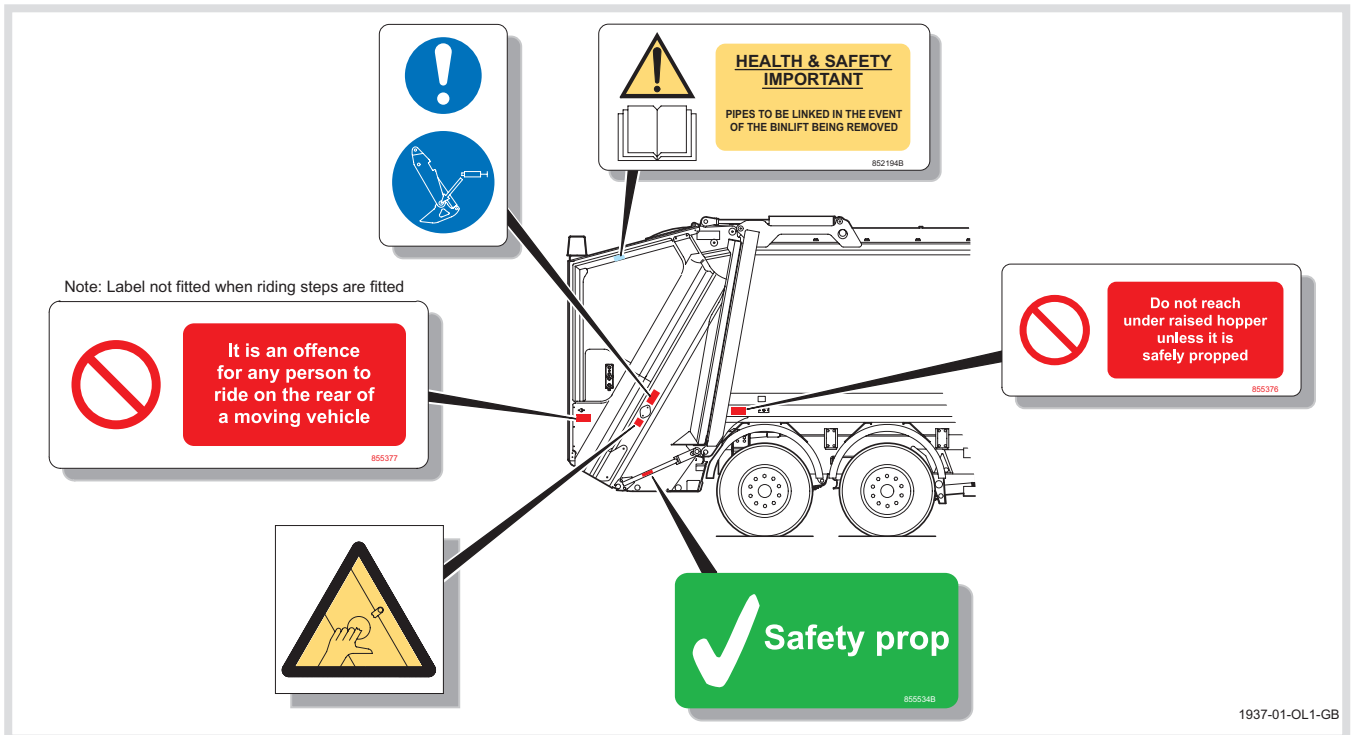


Fig. 3-1 Warning labels; right-hand rear of refuse collection bodywork

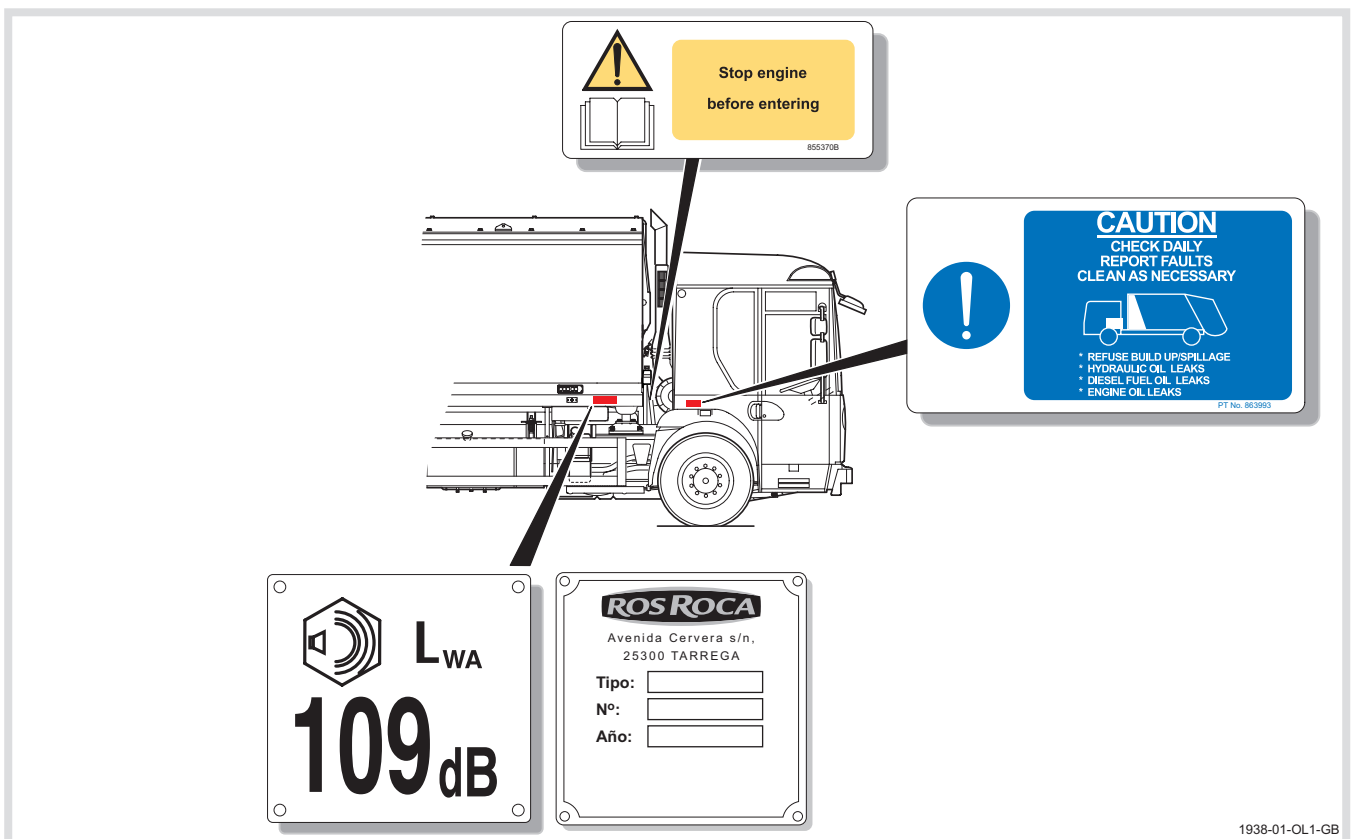


Fig. 3-2 Warning labels; right-hand front of refuse collection bodywork

# DAILY CHECKS

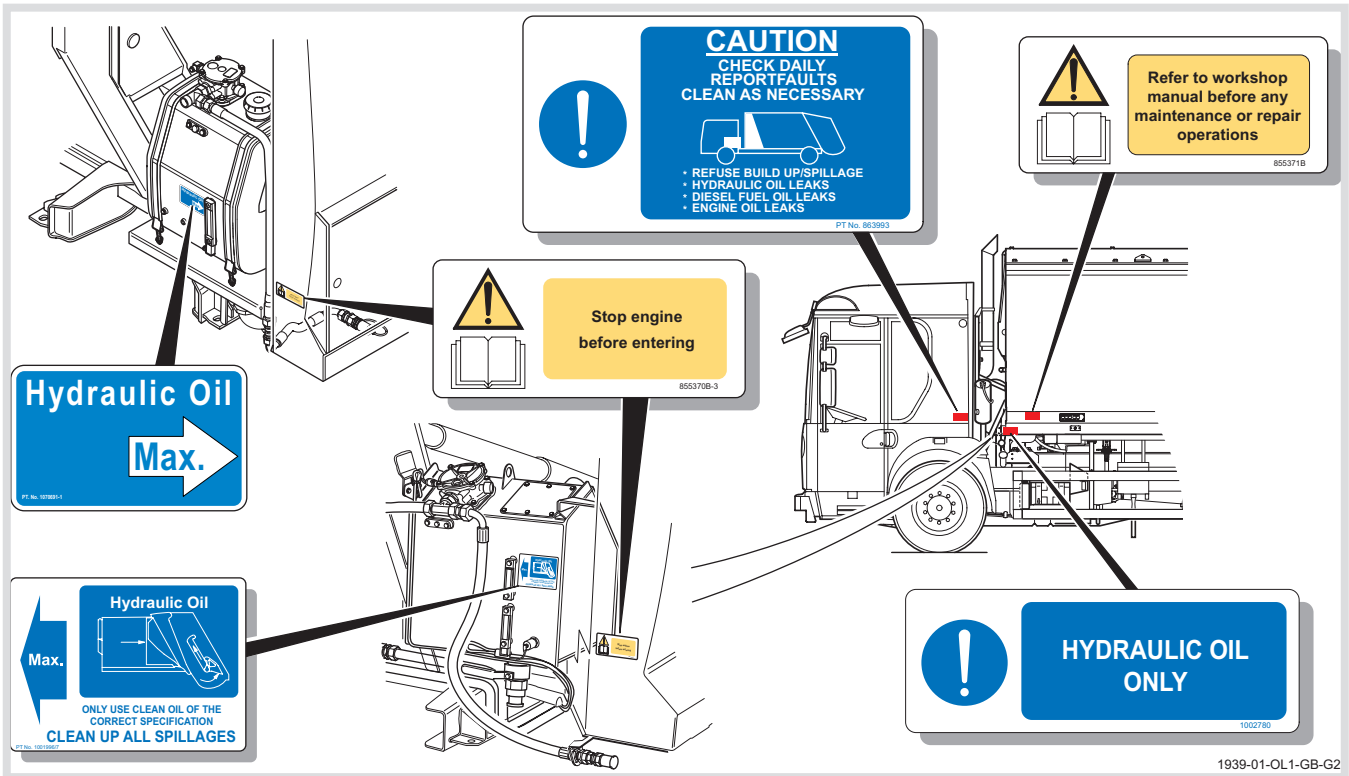


Fig. 3-3 Warning labels; left-hand front of refuse collection bodywork

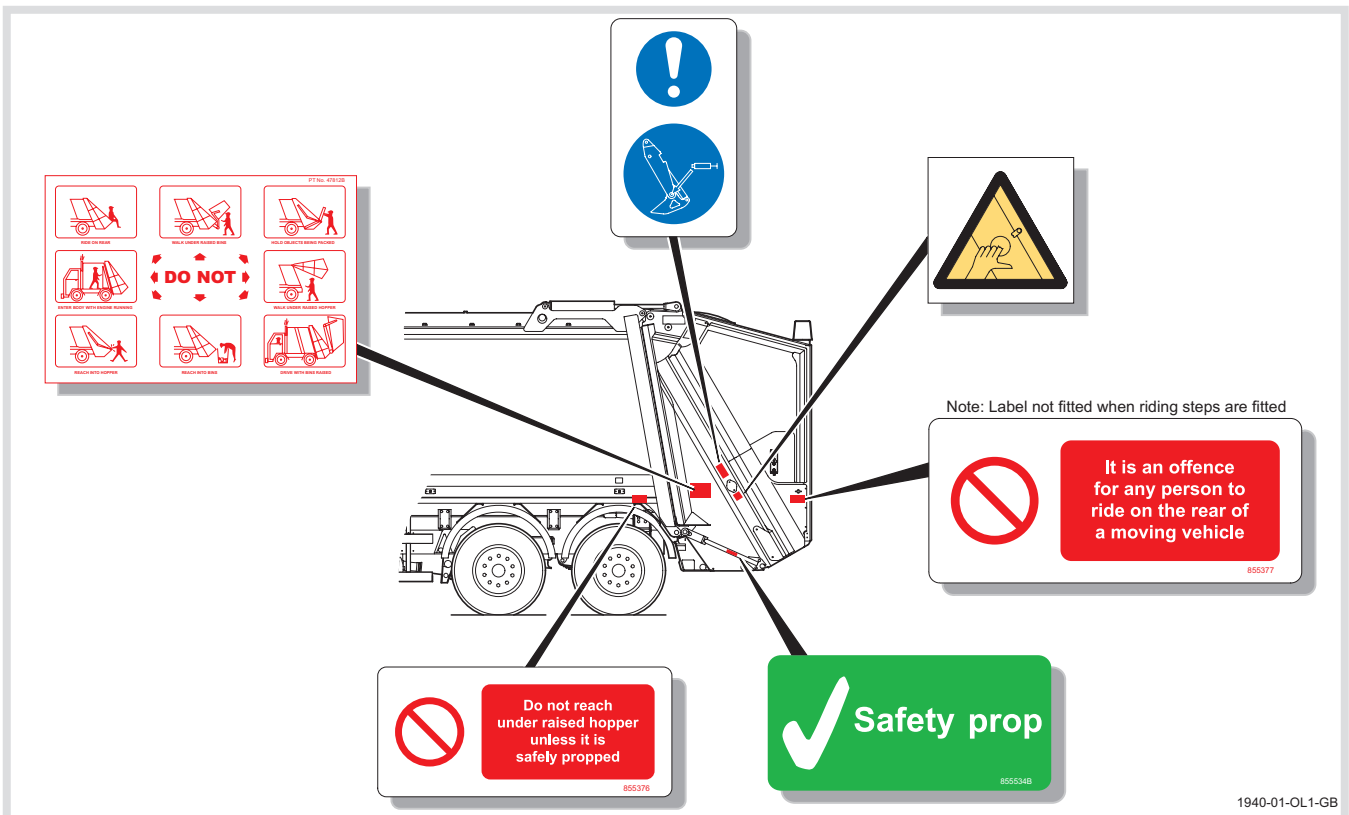
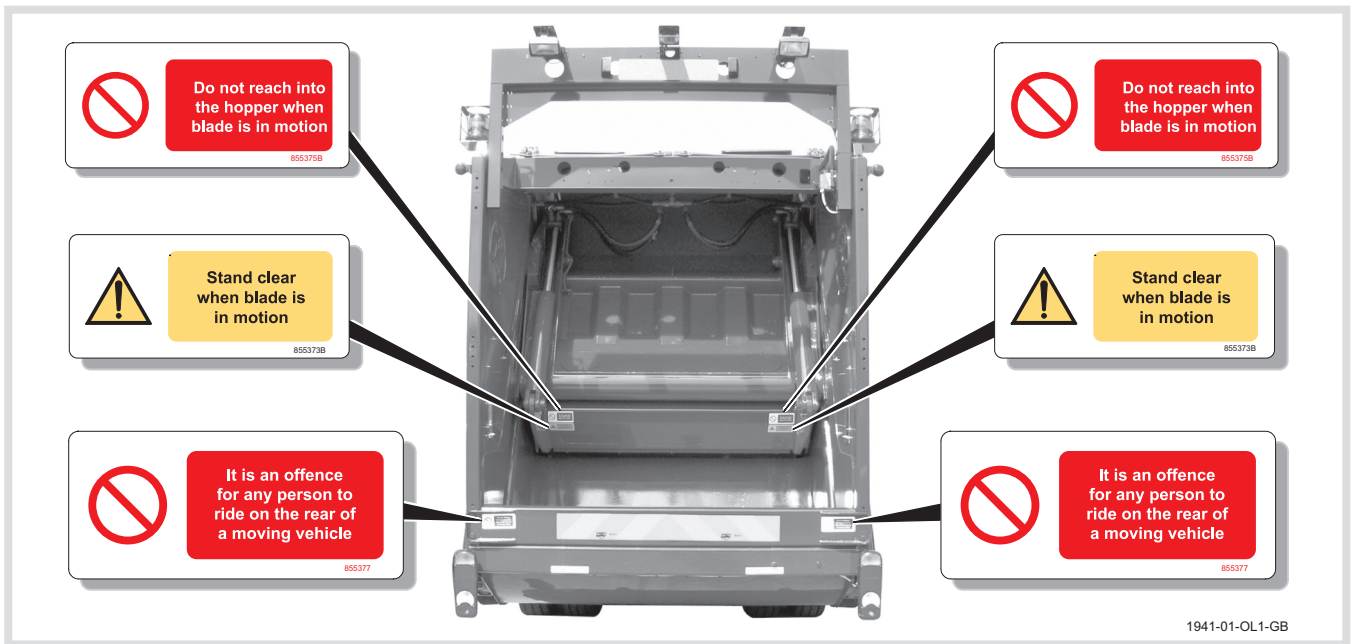


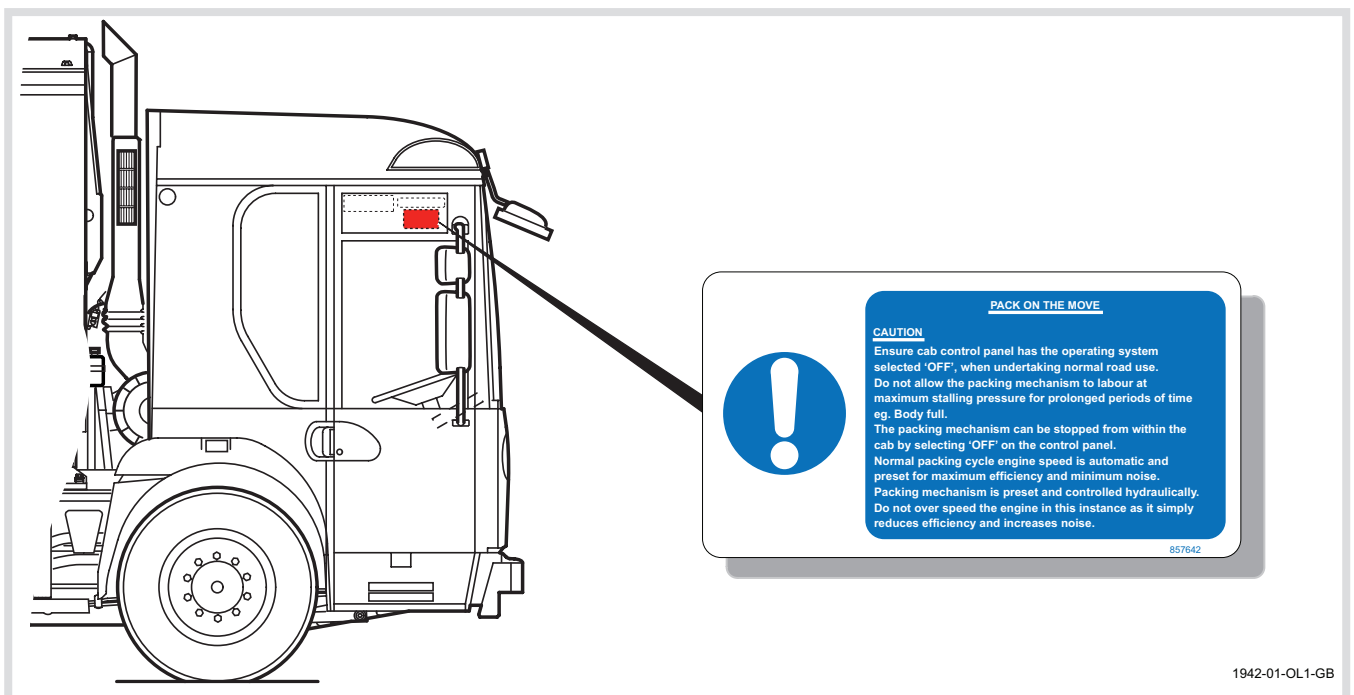
Fig. 3-4 Warning labels; left-hand rear of refuse collection bodywork





1941-01-OL1-GB

Fig. 3-5 Warning labels; rear of collection bodywork



1942-01-OL1-GB

Fig. 3-6 Warning labels; cab

THIS PAGE INTENTIONALLY LEFT BLANK

## CONTENTS

<b>4</b>	<b>HYDRAULIC SYSTEM OIL LEVEL .....</b>	<b>4-3</b>
4.1	TO CHECK HYDRAULIC SYSTEM OIL LEVEL .....	4-3
4.1.1	CHECK THE OIL LEVEL.....	4-5
4.1.2	TOPPING UP HYDRAULIC OIL - BULK OIL SUPPLY.....	4-6
4.1.3	TOPPING UP HYDRAULIC OIL - USING HAND PUMP.....	4-6

THIS PAGE INTENTIONALLY LEFT BLANK

## 4 HYDRAULIC SYSTEM OIL LEVEL

It is most important that the level of fluid in the hydraulic reservoir is maintained within the specified limits.

Topping up of the oil must be conducted in a controlled workshop environment using a pressurised filling system connected to a quick release coupling on the system. Operator's without a bulk oil delivery system are supplied with an optional hand pump and hoses.

It is most important that the hydraulic system is maintained according to the Olympus ART Maintenance Schedule and associated instructions.

System maintenance and filter element change requirements are specified in Chapter 6 "Scheduled Maintenance" of this Manual.

### 4.1 TO CHECK HYDRAULIC SYSTEM OIL LEVEL



**WARNING:**  
THE BODY MUST BE EMPTY WHEN CHECKING THE HYDRAULIC SYSTEM OIL LEVEL.

The level is checked with:

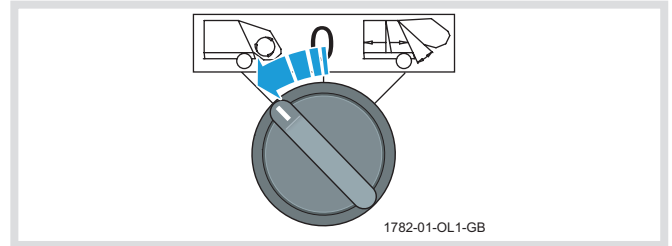
- Tailgate fully lowered (cylinders open).
- The ejection plate fully ejected to the rear of the body (cylinder open).
- The compaction mechanism packer plate is open and carriage plate is fully lowered (cylinders closed).

This is shown on the label adjacent to the hydraulic oil level gauge.

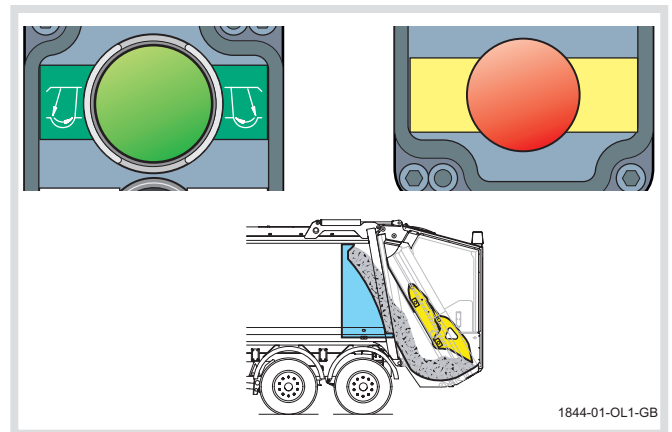
#### Procedure

1. Stand the vehicle on clean, level and stable ground with sufficient clearance to allow for the tailgates to be fully raised.
2. Engage the parking brakes.
3. Select Neutral 'N' on the vehicle transmission.
4. Check that the tailgate is in the normal position locked to the body.
5. Make sure that all personnel are clear of the body, tailgate and rear of the vehicle.

6. Start and run the engine.
7. Turn the 'Body master' switch to 'Run'.



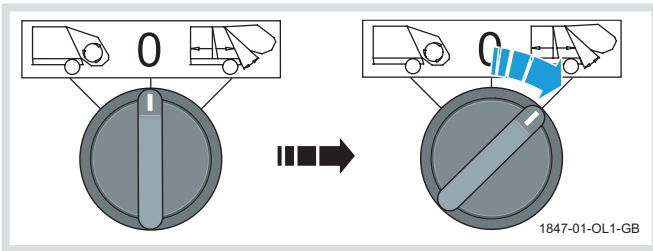
8. Press the 'Start pack cycle' push-button.
9. When the compaction mechanism reaches the point where the carriage plate is in fully lowered position and the packer plate is open, press the 'Emergency stop' push-button.



10. Release the 'Emergency stop' push-button.

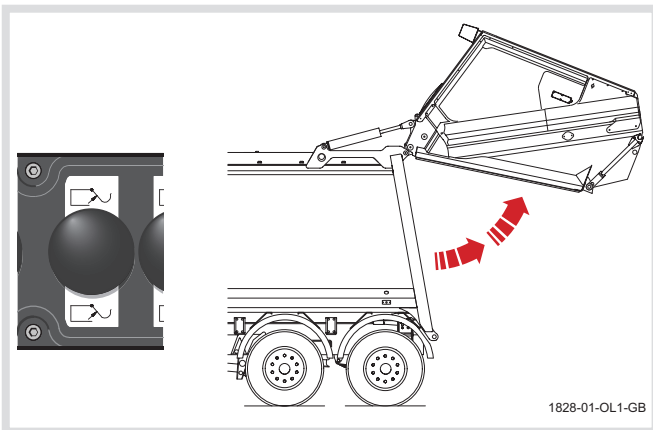
# HYDRAULIC SYSTEM OIL LEVEL

11. Turn the 'Body master' switch to 'Off' and then to 'Tip'.

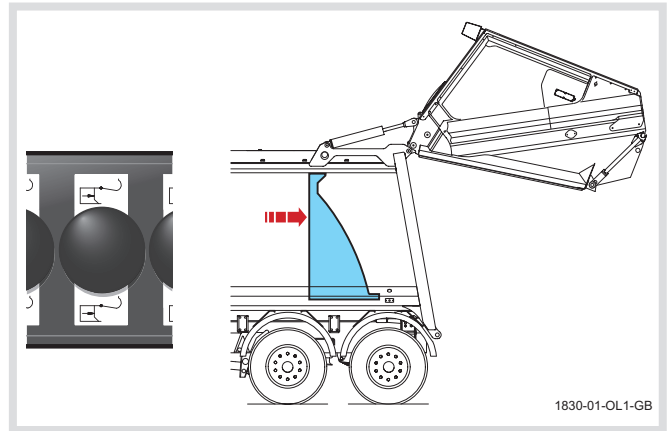


**WARNING:**  
MAKE SURE THAT YOU KNOW THE HEIGHT  
OF YOUR VEHICLE WITH THE TAILGATE  
AND LIFTING DEVICE, IF FITTED, RAISED.

12. Press and hold the 'Tailgate raise' push-button until the tailgate is out of its locks and then release the push-button.

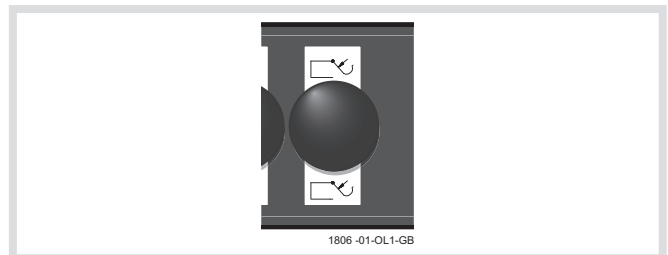


13. Press and hold the 'Ejector plate eject' push-button to move the ejection plate to the rear of the body. Release the push-button when the ejection plate is at the rear of the body.



**WARNING:**  
MAKE SURE THAT THE TAILGATE AREA IS  
CLEAR OF PERSONNEL.

14. Press the 'Tailgate lower' push-button to lower the tailgate fully into its locks.



15. Turn the 'Body master' switch to 'Off'.  
16. Switch ignition off. Remove and retain the key.  
17. Lock all cab doors. Remove and retain the keys.

## 4.1.1 CHECK THE OIL LEVEL

### Hydraulic tank with two oil sight glasses

- The reservoir is fitted with two oil sight glasses. The upper glass is marked with black and red lines to show maximum (see Fig. 4-1, A) and minimum (see Fig. 4-1, B) levels respectively during normal operation.
- When the compaction mechanism packer plate is open and carriage plate is fully lowered and the ejection plate to the rear of the body, the level should align with the point of the arrow (see Fig. 4-1, C) on the label adjacent to the upper glass.



**Caution:**  
If the oil level is only visible in the lower sight glass, the hydraulic system must not be used until the system has been filled to the correct level.

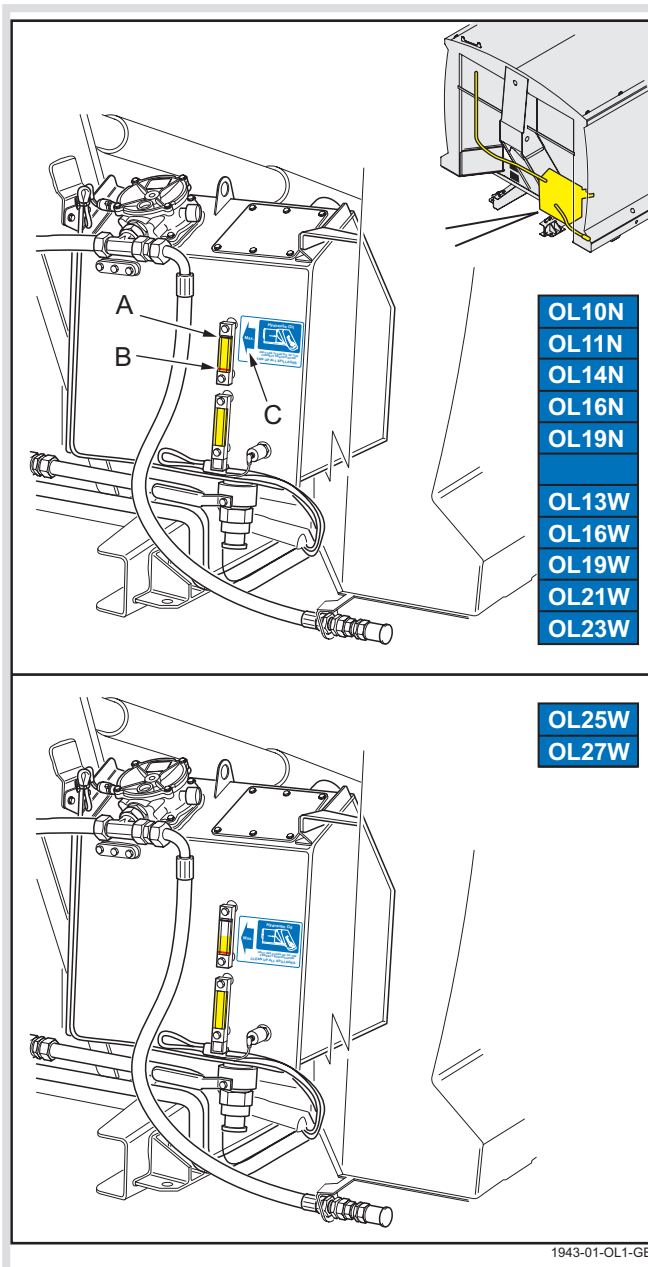


Fig. 4-1 Hydraulic oil level

### Hydraulic tank with two oil sight glasses

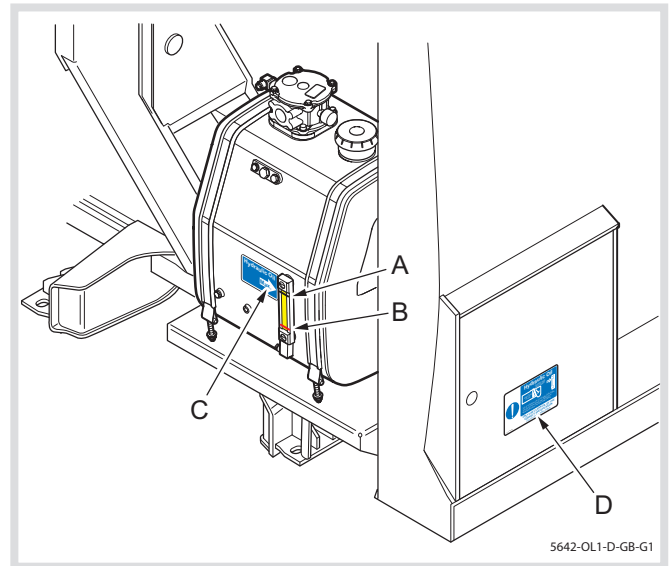


Fig. 4-2 Hydraulic system oil level gauge

- A. Maximum level.
- B. Minimum level.
- C. Correct level.
- D. Component position label.

# HYDRAULIC SYSTEM OIL LEVEL

## 4.1.2 TOPPING UP HYDRAULIC OIL - BULK OIL SUPPLY

1. If topping up is necessary, thoroughly clean:
  - The quick release coupling cap and its surrounding area.
  - Any filling equipment to be used.

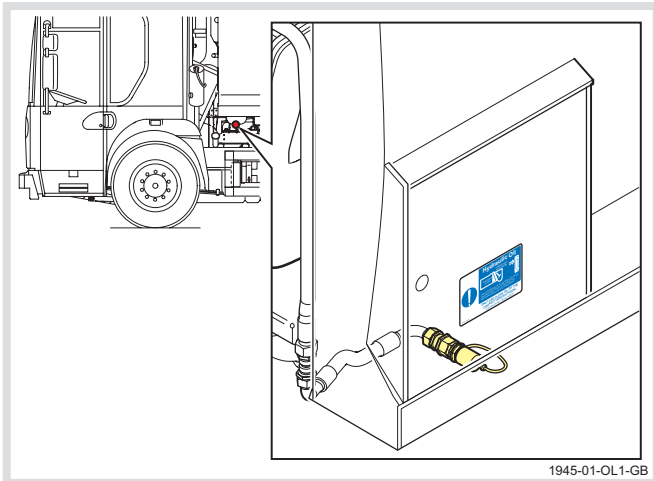


Fig. 4-3 Quick release coupling

2. Connect the filling equipment to the quick release coupling (see Fig. 4-3). Top up as necessary to the correct level using new hydraulic oil to the correct specification.

TEMPERATURE RANGE	BS 4231 VISCOSITY GRADE	ISO OIL TYPE	MANUFACTURERS SPECIFICATION
-30° to +80°	32	HM	Q8 Foil 32 BLP <b>Note:</b> Q8 Foil 32 used on new equipment. Biodegradable viscosity 46 oil is used where specified by customers.



**Caution:**  
Do not mix different oil types.

3. Disconnect the filling equipment from the quick release coupling.
4. Replace the quick release coupling cap.
5. If the hydraulic level is very low, inspect all the hydraulic systems including bin lifts, if fitted, for hydraulic oil leaks. Rectify any leaks before operating the vehicle.

## 4.1.3 TOPPING UP HYDRAULIC OIL - USING HAND PUMP



Fig. 4-4 Hand pump

1. Filler hose.
2. Pump.
3. Filler hose securing clips.
4. Inlet filter.
5. Protective cap.





**Fig. 4-5 Hand pump connections**

1. Position a drum of new hydraulic oil close to the filler point.
2. Clean the top of the drum and unscrew the filler plug.
3. Release the filler hose from its mounting clips and unstow the hose.
4. Clean the filler hose.
5. Withdraw the protective cap from the inlet filter.
6. Insert the filler hose into the oil drum, so that the filter is submerged in the oil.
7. Insert the handle into the pump.
8. Operate the pump until the oil level in the tank is correct.
9. Withdraw the filler hose from the drum and wipe clean. Refit the protective cap over the filter and stow the hose securely in its mounting clips.
10. Refit the filler plug in the drum and remove the oil drum.

THIS PAGE INTENTIONALLY LEFT BLANK

## CONTENTS

5	<b>CLEANING</b> .....	<b>5-3</b>
5.1	DRAIN .....	<b>5-4</b>
5.1.1	BODY DRAIN .....	<b>5-4</b>
5.1.2	TAILGATE DRAINS.....	<b>5-4</b>
5.2	DAILY CLEANING .....	<b>5-5</b>
5.3	PRESSURE WASHING .....	<b>5-6</b>
5.4	CLEANING THE LEACHATE TANK.....	<b>5-6</b>

THIS PAGE INTENTIONALLY LEFT BLANK

## 5 CLEANING

The refuse collection vehicle and its ancillary equipment must be kept as clean as possible to prevent potential health hazards and promote trouble free operation.

The vehicle may be cleaned using proprietary detergent solutions for cleaning commercial vehicles and steam cleaning according to the following guidelines.



**Caution:**  
Caustic or acidic cleaning solutions must not be used as they may damage components and assemblies. Use of such solutions may invalidate the warranty granted with this product.



**WARNINGS:**  
NEVER ENTER THE TAILGATE OR BODY TO CLEAN DEBRIS UNLESS:

YOU KNOW AND CAN WORK TO THE SAFE WORKING PROCEDURES DETAILED IN THE SERVICE MANUAL.

THE BODY MASTER SWITCH IS IN THE OFF POSITION.

THE IGNITION IS IN THE OFF POSITION WITH THE KEY REMOVED.

A SIGN READING "DO NOT START OR OPERATE VEHICLE" IS SECURED TO THE STEERING WHEEL.

ALL CAB DOORS ARE LOCKED WITH THE KEYS REMOVED.

YOU ARE IN POSSESSION OF ALL THE KEYS, AND ANY SPARE KEYS.

WEAR PROTECTIVE CLOTHING, GLOVES AND GOGGLES WHEN CLEANING. LOOSE DEBRIS MAY BE EJECTED FROM THE BODY AND TAILGATE.

THE VEHICLE IS FITTED WITH A BODY/ TAILGATE SEAL, WHICH MINIMISES FLUID LOSS WHEN COLLECTING VERY WET REFUSE. IT IS IMPORTANT THE SEAL AND ITS MATING FACE ARE KEPT CLEAN. CLEANING SHOULD TAKE PLACE AFTER THE DISCHARGE OPERATION.

REPORT ANY SEAL DAMAGE TO SUPERVISION IMMEDIATELY.

WHEN CLEANING THE TAILGATE AND BODY BE AWARE OF DANGEROUS REFUSE SUCH AS GLASS AND HYPODERMIC NEEDLES.

NEVER CLEAN THE SEAL AREA UNLESS THE TAILGATE IS FULLY PROPPED.

**FIRE HAZARD.**  
REFUSE PUSH OVER AT FRONT OF BODY DUE TO EXCESS BUILD UP OF REFUSE CAN FALL ONTO HOT ENGINE AND EXHAUST.

INSPECT THE VEHICLE DAILY TO MAKE SURE THERE IS NO REFUSE, PAPER OR FLAMMABLE MATERIALS NEAR THE ENGINE OR EXHAUST. THESE COULD CAUSE A FIRE WHEN THE ENGINE IS STARTED. IF NECESSARY, TILT THE CAB (SEE CHASSIS MANUFACTURER'S OPERATOR'S HANDBOOK) TO MAKE A THOROUGH INSPECTION.

**FIRE HAZARD.**  
OIL SPILLAGE AT FRONT OF BODY COULD BE IGNITED BY HOT ENGINE AND EXHAUST. CLEAN UP ANY SPILLAGE AND ENSURE THAT LEAKS ARE RECTIFIED IMMEDIATELY.



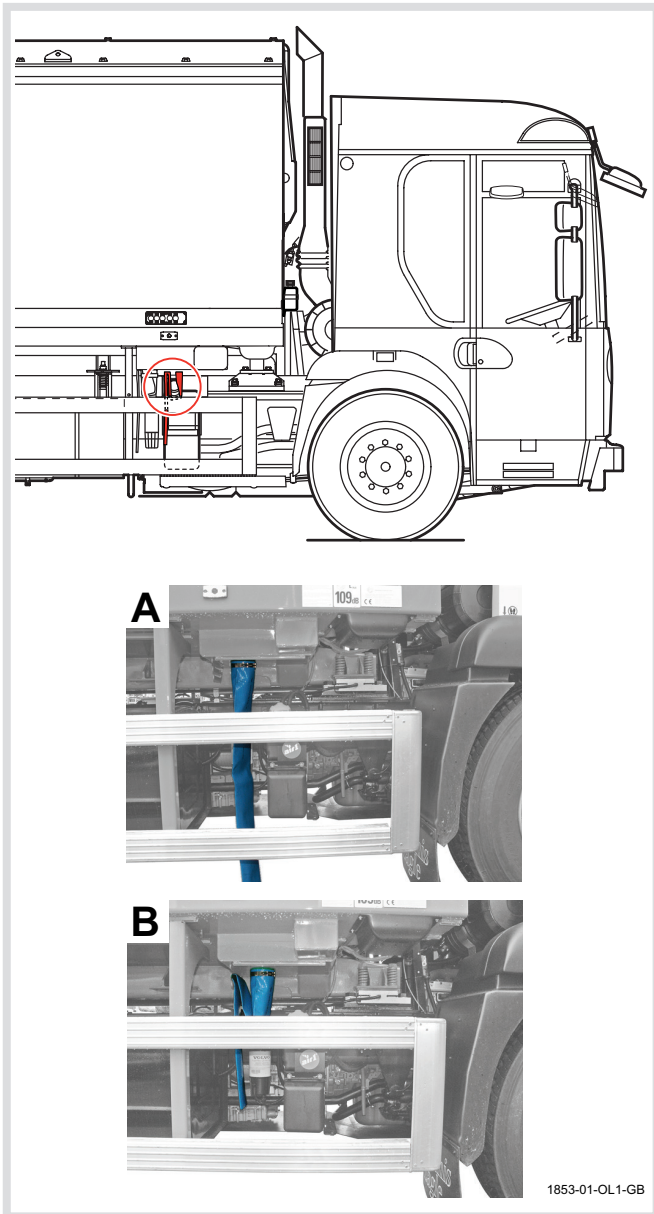
**Caution:**  
High pressure water jets can seriously damage electrical equipment. A minimum distance of one metre must be maintained when pressure washing.

# CLEANING

## 5.1 DRAIN

### 5.1.1 BODY DRAIN

The body drain is on the right-hand side of the body at the front.

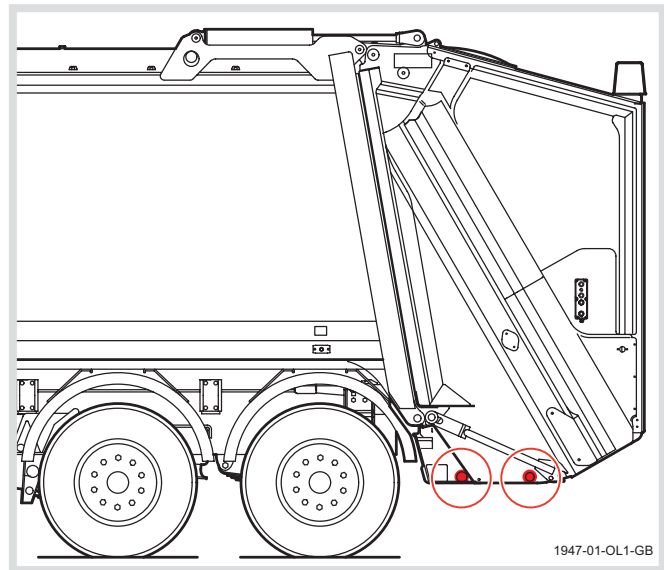


**Fig. 5-1 Body drain**

- K. To open: Release hose.
- L. To close: Stow hose in bracket.

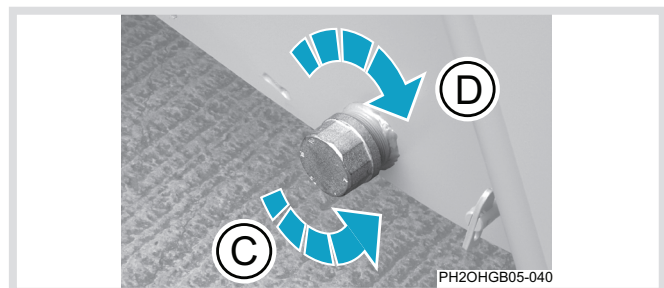
### 5.1.2 TAILGATE DRAINS

There is a drain point on each side of the tailgate and juice tank (if fitted).



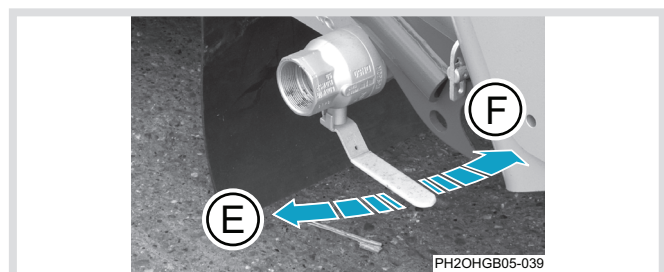
**Fig. 5-2 Tailgate drains**

#### 1 Plug Type



- M. To open: Unscrew drain plug off drain.
- N. To close: Screw drain plug onto drain.

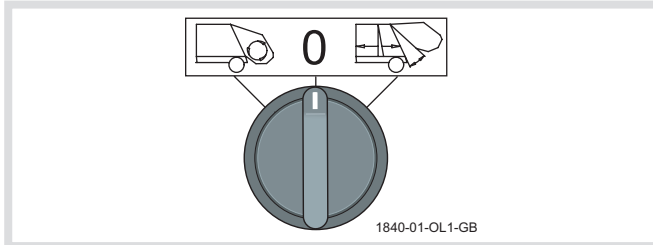
#### 2 Valve Type



- O. To open: Turn lever outwards.
- P. To close: Turn lever inwards.

## 5.2 DAILY CLEANING

1. Stand the vehicle on clean, level and stable ground with sufficient clearance to allow for the tailgates to be fully raised.
2. Engage the parking brakes.
3. Select Neutral 'N' on the vehicle transmission:
4. Turn the 'Body master' switch to the 'Off' position.



5. Switch ignition off. Remove and retain the key.
6. Secure a sign 'DO NOT START or OPERATE VEHICLE' to the steering wheel.
7. Lock all cab doors. Remove and retain the keys.
8. Inspect the tailgate hopper and remove any refuse.
9. Open the tailgate drains (see "5.1.2 Tailgate drains" on page 5-4).
10. Open the body drain (see "5.1.1 Body drain" on page 5-4).



**WARNINGS:**  
**IF NECESSARY TILT VEHICLE CAB TO ACCESS FRONT OF BODY.**

**MAKE SURE VEHICLE COMPONENTS ARE COLD BEFORE ENTERING BODY.**

**USE SUITABLE ACCESS LADDER.**

11. Enter the body through the aperture at the front.
12. Clean out any refuse which has entered the body in front of the ejection plate.
13. Clean debris from the body sump and wash out thoroughly. Drain through the external hose to ensure thorough cleaning is achieved.
14. Close the tailgate drains (see "5.1.2 Tailgate drains" on page 5-4).
15. Close the body drain (see "5.1.1 Body drain" on page 5-4).
16. Make sure that there is no refuse, paper or flammable materials near the engine or exhaust. These could cause a fire when the engine is started. If necessary, tilt the cab (see Chassis Manufacturer's Operator's Handbook) to make a thorough inspection.

# CLEANING

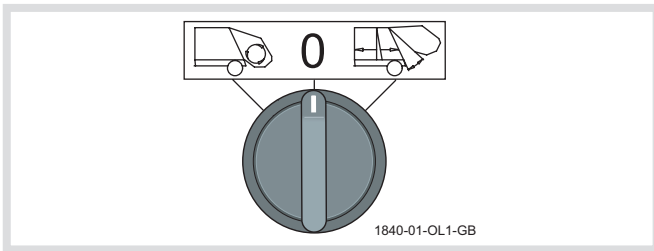
## 5.3 PRESSURE WASHING



**Caution:**  
When pressure washing the Refuse Collection Vehicle, its chassis, body, refuse compaction mechanism and any ancillary equipment, such as lifting devices, do not allow the jet nozzle to approach closer than 1 metre.

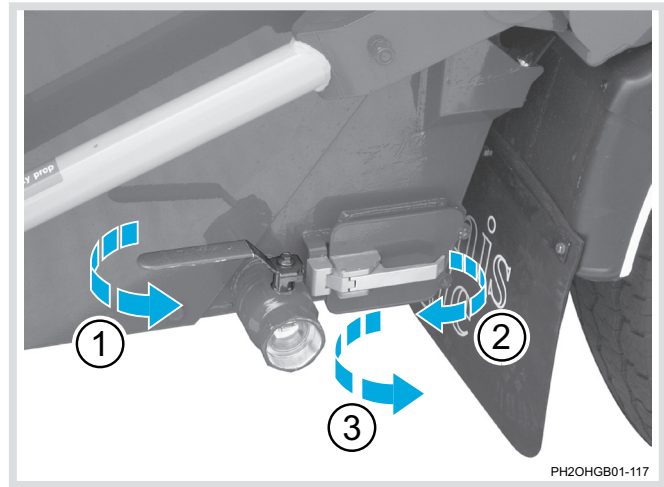
Clean the compaction mechanism and slide tracks by pressure washing at least once a week as follows:

1. Stand the vehicle on clean, level and stable ground with sufficient clearance to allow for the tailgate to be fully raised.
2. Engage the parking brakes.
3. Select Neutral 'N' on the vehicle transmission.
4. Open the tailgate drains (see "5.1.2 Tailgate drains" on page 5-4).
5. Prop the tailgate (see Operator's Handbook).
6. Turn the 'Body master' switch to the 'Off' position.



7. Switch ignition off. Remove and retain the key.
8. Secure a sign 'DO NOT START or OPERATE VEHICLE' to the steering wheel.
9. Lock all cab doors. Remove and retain the keys.
10. Using a proprietary pressure washer, clean the compaction mechanism and ejection plate and their slide blocks and tracks.
11. Inspect the seal and its mating face.
12. Unprop the tailgate (see Operator's Handbook).
13. Close the tailgate drains (see "5.1.2 Tailgate drains" on page 5-4).

## 5.4 CLEANING THE LEACHATE TANK



**Fig. 5-3 Leachate tank**

1. Open ball valve drain.
2. Release leachate tank door catch.
3. Open leachate tank door.
4. Using proprietary pressure washer thoroughly clean the inside of the leachate tank.
5. Ensure all liquid has drained from the leachate tank.
6. Close the leachate tank door.
7. Close ball valve drain.



## CONTENTS

<b>6</b>	<b>SCHEDULED MAINTENANCE .....</b>	<b>6-3</b>
6.1	INTRODUCTION.....	6-3
6.2	OPERATIONAL MAINTENANCE.....	6-3
6.3	ROUTINE MAINTENANCE .....	6-3
6.4	WARNINGS.....	6-3
6.5	LUBRICATION .....	6-4
6.6	WEEKLY SERVICE CHECKS .....	6-5
6.6.1	CLEAN THE BODY AND TAILGATE.....	6-5
6.6.2	LUBRICATE HINGES AND LINKAGES.....	6-5
6.7	6-WEEK SERVICE CHECKS.....	6-6
6.7.1	CHECK THE SECURITY OF BODY MOUNTING BOLTS.....	6-6
6.7.2	CLEAN THE TAILGATE PROXIMITY SWITCHES.....	6-7
6.8	12-WEEK SERVICE CHECKS .....	6-8
6.8.1	BODY CHECKS.....	6-8
6.8.2	TAILGATE CHECKS .....	6-8
6.8.3	HYDRAULIC SYSTEM COMPONENTS CHECKS .....	6-9
6.8.4	ELECTRICAL SYSTEM CHECKS .....	6-9
6.8.5	POWER TAKE OFF PROPELLER SHAFT (IF FITTED) .....	6-10
6.8.6	HAND WASH UNIT (OPTIONAL ITEM) .....	6-10
6.8.7	OPERATIONAL CHECK.....	6-10
6.8.8	COMPACTION MECHANISM CYCLE TIME CHECK .....	6-10
6.8.9	TAILGATE LOWER TIME CHECK.....	6-11
6.9	12-MONTH SERVICE CHECKS.....	6-12
6.9.1	RENEW HYDRAULIC OIL FILTER ELEMENT AND BREATHER FILTER.....	6-12
6.10	24-MONTH HYDRAULIC SYSTEM OIL QUALITY CHECK/ 36-MONTH HYDRAULIC SYSTEM OIL CHANGE .....	6-13

# SCHEDULED MAINTENANCE

THIS PAGE INTENTIONALLY LEFT BLANK

## 6 SCHEDULED MAINTENANCE

### 6.1 INTRODUCTION

The refuse collection mechanism should be serviced only by skilled engineers who have received the approved Olympus ART training and who are fully conversant with its operation and safety procedures.

### 6.2 OPERATIONAL MAINTENANCE

It is important that your machine is kept in good working order. Before the vehicle is put into service, carry out the inspection procedure 'Daily Safety Checks' as specified in Chapter 3 "Daily Checks" of this Manual to confirm the correct operation of the machine, its controls, safety circuits and interlocks.

Make sure that there is no mechanical damage or wear evident in the refuse mechanism especially in the pivoting and locking of the tailgate to the body.

Any problems must be reported to supervision immediately.

### 6.3 ROUTINE MAINTENANCE

To maintain the mechanism at peak operational efficiency and good condition:

- The refuse collection mechanism should be serviced according to the procedures and at the intervals specified in this chapter.
- Only approved lubricants, fluids and replacement parts must be used when servicing the vehicle as specified in Chapter 8 'General Specification Data' of this Manual.

### 6.4 WARNINGS



**WARNING:**  
**DO NOT WALK ON THE BODY ROOF OR  
TAILGATE TOP COVER PANELS.**

# SCHEDULED MAINTENANCE

## 6.5 LUBRICATION

1. Immobilise the vehicle (see “1.3 Immobilising the vehicle prior to service procedures” on page 1-4).
2. Remove the bolts securing the bottom of the packer plate pivot cover plates. Loosen the top bolts and open each cover (see Fig. 6-1, A).
3. Start the engine.
4. Turn the ‘Body master’ switch to ‘Run’.
5. Press and release the ‘Start pack cycle’ push-button.
6. When the grease nipple is visible in the access hole, press an ‘Emergency stop’ push-button.
7. Reset the ‘Emergency stop’ push-button.
8. Immobilise the vehicle (see “1.3 Immobilising the vehicle prior to service procedures” on page 1-4).
9. Clean the following mechanisms and lubricate with grease:
  - Carriage plate/Packer plate bearings (2 nipples) (see Fig. 6-1, 1).



Refer to chassis manufacturer's Service Information for instructions about maintenance of relevant chassis components including power take off, etc.

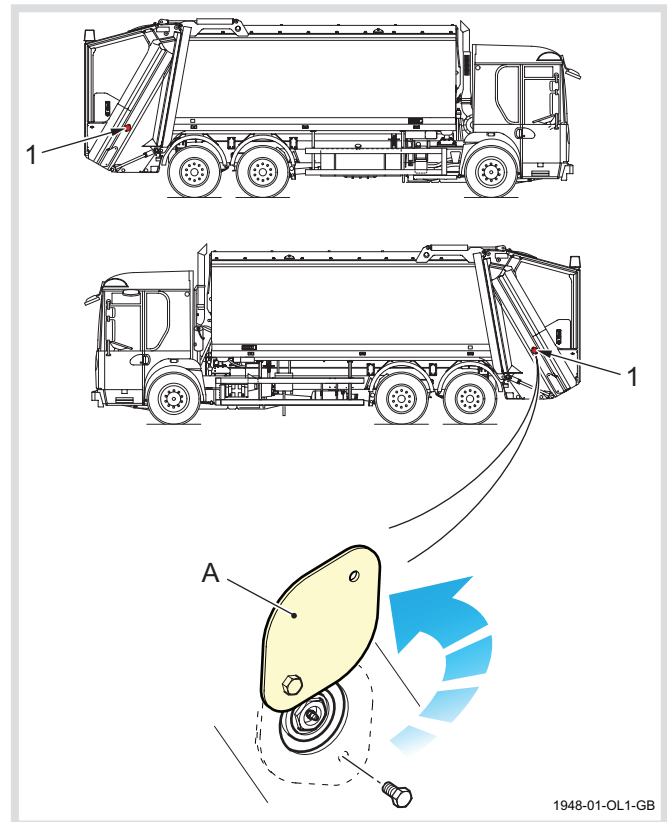


Fig. 6-1 Lubrication points

## 6.6 WEEKLY SERVICE CHECKS

The following service checks should be carried out once a week or more frequently when the Refuse Collection Vehicle is operating in severe conditions.

The following service checks should be carried out in addition to the Daily Service Checks.

### 6.6.1 CLEAN THE BODY AND TAILGATE

(see Fig. 6-2).

1. Immobilise the vehicle (see “1.3 Immobilising the vehicle prior to service procedures” on page 1-4).
2. Clean the tailgate using a pressure washer (see “5.3 Pressure washing” on page 5-6). Make sure you remove foreign matter from:
  - The hopper (2a).
  - The slide ways in the tailgate (2b).
  - The gap between the carriage plate and retaining plate (2c).
  - The bottom end of the carriage plate/carriage plate cylinder bearing block (2d).
  - The area where hydraulic cylinders close into the body or small spaces (2e).
3. Clean the body in front of the ejection plate.
  - Make sure that all debris and foreign matter is removed from the sump and that the body drain hose is clear (3a).
  - Make sure you remove foreign matter from the slide ways in the body (3b).
4. Clean the tailgate pivots.

### 6.6.2 LUBRICATE HINGES AND LINKAGES

1. Lubricate hinges and linkages (see “6.5 Lubrication” on page 6-4).

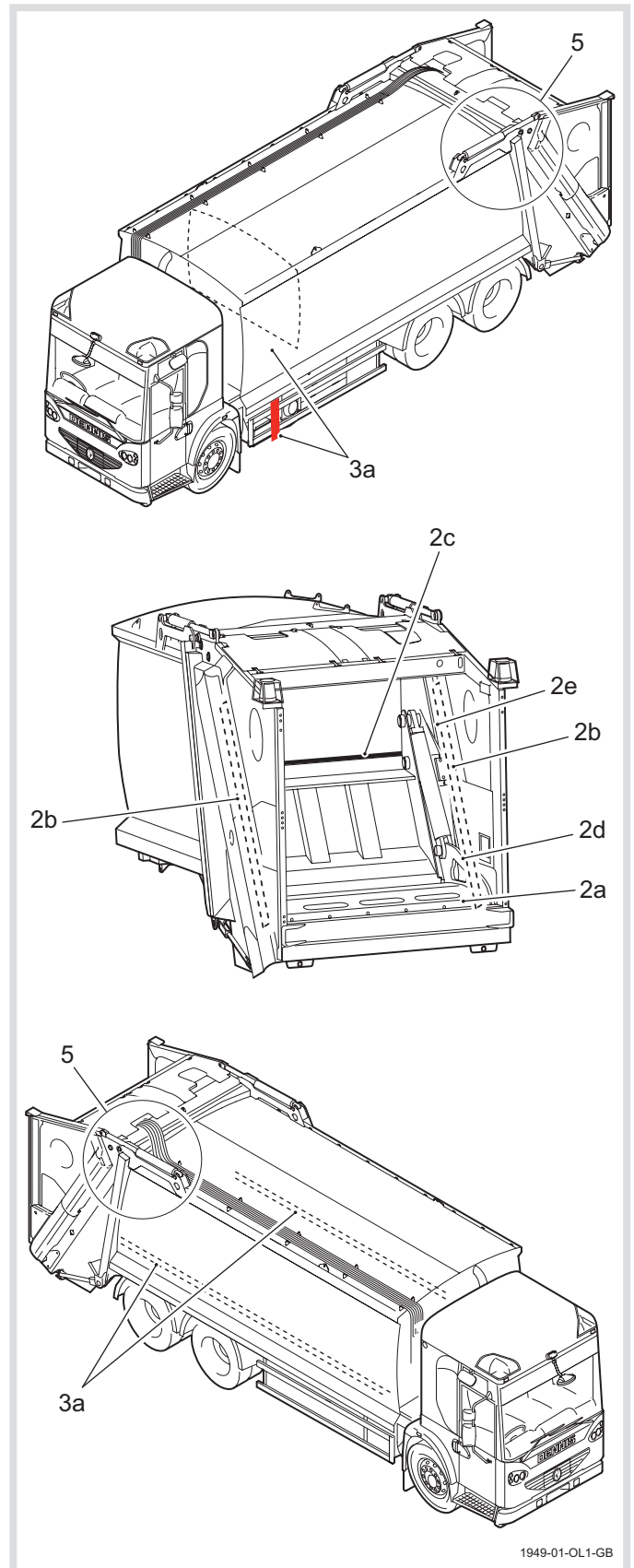


Fig. 6-2 Body tailgate cleaning points

# SCHEDULED MAINTENANCE

## 6.7 6-WEEK SERVICE CHECKS


The following service checks should be carried out once every 6 weeks or more frequently when the Refuse Collection Vehicle is operating in severe conditions.

The following service checks should be carried out in addition to the Daily Service Checks and Weekly Service Checks.

1. Immobilise the vehicle (see "1.3 Immobilising the vehicle prior to service procedures" on page 1-4).

### 6.7.1 CHECK THE SECURITY OF BODY MOUNTING BOLTS

Check that body mounting bolts and tightened to the specified torques, and spring lengths and gaps are correct.

REF.	COMPONENTS	SIZE	SPRING LENGTH **/ GAP † MM		
				Nm	lbf ft
1	Front body mounting bolts.	M24 x 80		1000	740
2	Front body mounting bolts.	M20 x 190	**65		
3	Intermediate body mounting bolts.	M24 x 170	±5		
4	Intermediate body mounting bolts.	M24 x 170	**70		
5	Intermediate body mounting bolts.	M16 x 60		150	110
6	Intermediate support blocks.	M12 x 80		101	75
7	Intermediate support blocks.	M12 x 40		101	75
8	Rear body mounting bolts.	M24 x 58		1000	740
9	Rear body mounting bolts.	M16 x 60		150	110

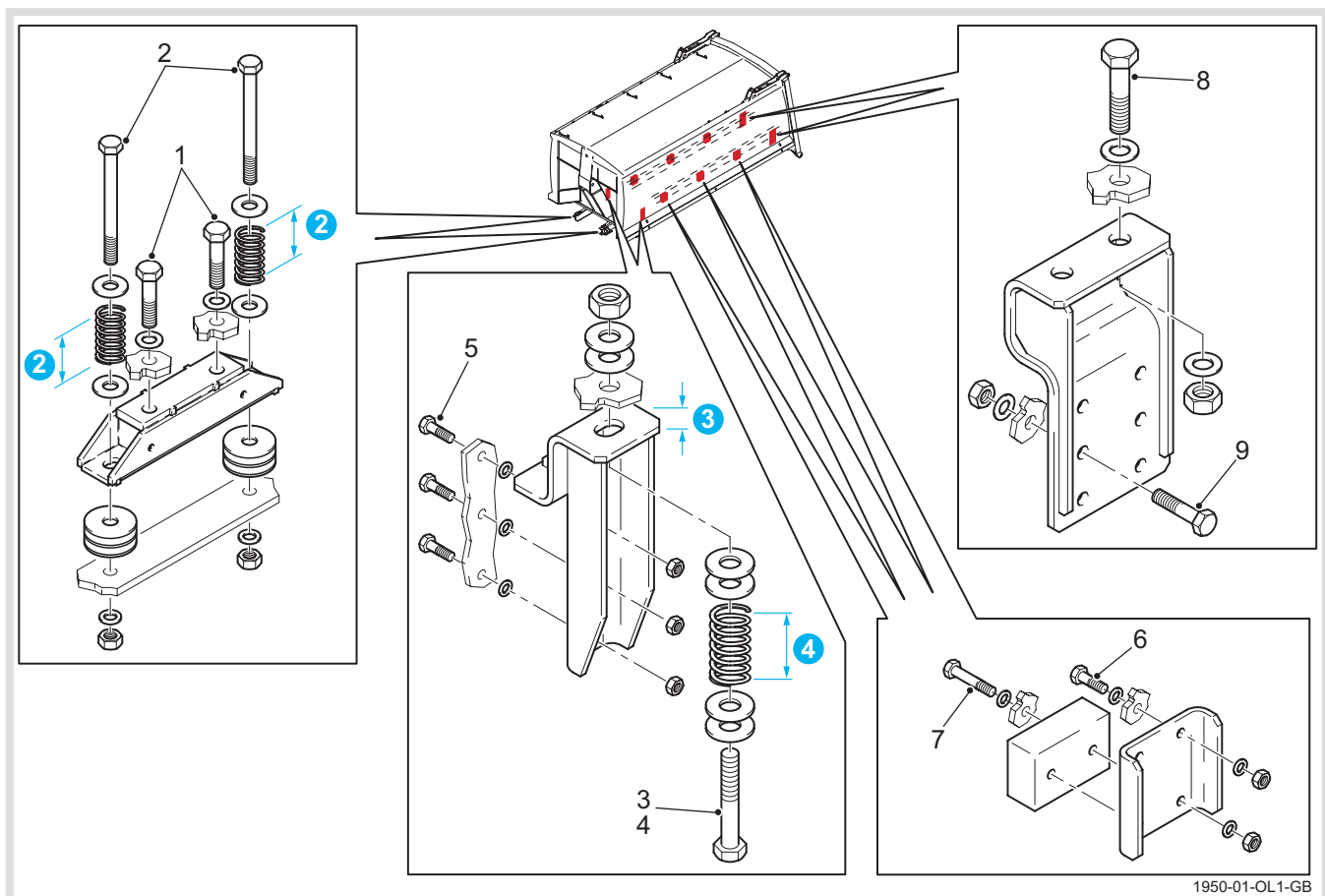
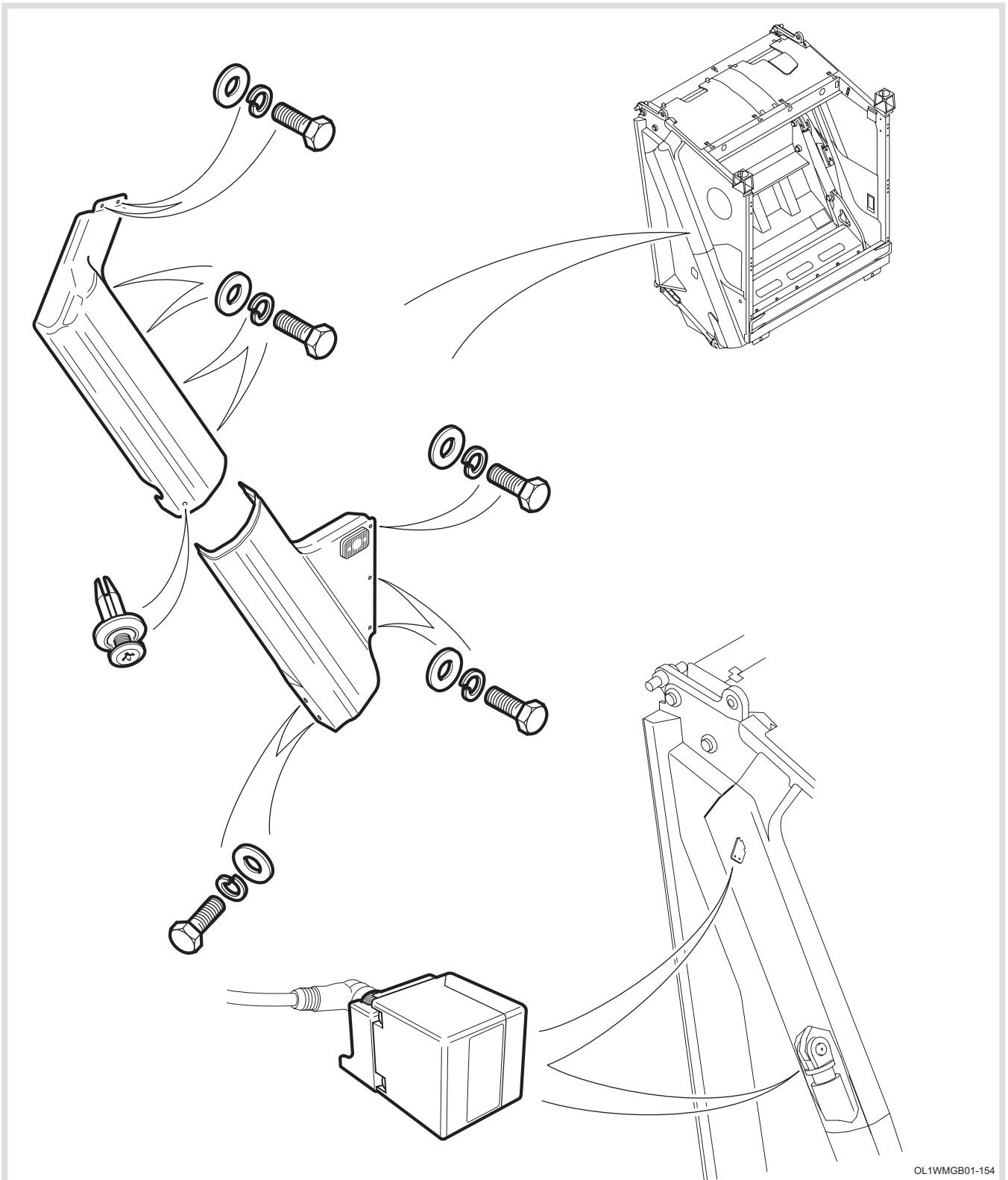


Fig. 6-3 Body mounting bolts

## 6.7.2 CLEAN THE TAILGATE PROXIMITY SWITCHES

1. Remove the tailgate side covers and clean the tailgate micro switches.
  - Carefully wipe any dirt away from the face of each micro switch and its operating plate.



OL1WMGB01-154

Fig. 6-4 Tailgate proximity switches

# SCHEDULED MAINTENANCE

## 6.8 12-WEEK SERVICE CHECKS

The following service checks should be carried out every 12 weeks or more frequently when the Refuse Collection Vehicle is operating in severe conditions.

The following service checks should be carried out in addition to the Daily Service Checks, Weekly Service Checks and 6-Week Service Checks.

1. Stand the vehicle on clean, level and stable ground.
2. Prop the tailgate (see Operator's Handbook).
3. Immobilise the vehicle (see "1.3 Immobilising the vehicle prior to service procedures" on page 1-4).

### 6.8.1 BODY CHECKS

1. Check that the body is sitting square on the chassis.
2. Examine the condition of the following body components for security, displacement, wear, distortion, cracks, damage or corrosion, which affect their strength or operation. Make sure that brackets, fixings, welds and bolts are secure and not creating a danger to other users:
  - Body load bearing members near the mounting points.
  - Tailgate load-bearing members near the mounting points.
  - Tailgate lock pins.
  - Cylinder mountings and pivots.
  - Ejection plate.
  - Ejection plate guides.
  - Ejection plate slide blocks.
3. Check that structural (stressed) panels are not damaged or worn to less than 75% of their original thickness.

### 6.8.2 TAILGATE CHECKS

1. Check that the tailgate is sitting square on the body.
2. Check that the carriage plate assembly is sitting square in its tailgate.
3. Examine the condition of the following body components for security, displacement, wear, distortion, cracks, damage or corrosion, which affect their strength or operation. Make sure that brackets, fixings, welds and bolts are secure and not creating a danger to other users:
  - Tailgate pivots.
  - Rave rail.
  - Tailgate lock hooks.
  - Packer plate.
  - Packer plate pivot pins and bushes.
  - Carriage plate guides.
  - Carriage plate.
  - Carriage plate slide blocks.



Since the carriage plate is subjected to rough treatment, superficial damage that does not affect the strength of the component is not a reason for rejection.

4. Check that gap between the carriage plate and refuse retaining plate is between 1 - 5 mm.
5. Examine the condition of the tailgate seal for security, damage, wear, shape, bulging, splits or perishing.



## 6.8.3 HYDRAULIC SYSTEM COMPONENTS CHECKS

1. Examine the following hydraulic system components and their mountings for, security, fractures, displacement, wear, distortion, cracks, damage, leaks or corrosion. Check that all split pins and washers are present and undamaged.
  - Hydraulic tank.
  - Hydraulic pumps.
  - Hydraulic filters.
  - Main valve block.
  - Ejector cylinder.
  - Packer plate cylinders (2 off).
  - Carriage plate cylinders (2 off).
  - Tailgate raise lower cylinders (2 off).
2. Check all rigid hydraulic pipes for, security, fractures, displacement, wear, distortion, cracks, damage, leaks, corrosion, fouling by moving parts, or chafing.
  - Where pipes are held by clips or supported by other means, ensure all clips and supporting devices are present and securely attached and fastened.
3. Check all flexible hydraulic hoses for, security, fractures, displacement, wear, distortion, cracks, damage, leaks, corrosion, deterioration, stretching or twisting, fouling by moving parts, or chafing.
  - Make sure hoses have sufficient room to move as necessary without fouling any part of the vehicle.
  - Make sure there are no sharp bends.
  - Check for signs of exposure to excessive heat.
  - Leaks - particularly when the system is in operation.
  - Check for signs of weakness or bulging- particularly when under maximum pressure.
  - Check for signs of perishing on the outer cover.

## 6.8.4 ELECTRICAL SYSTEM CHECKS

1. Examine all the electrical wiring looms, their connectors, wires and mountings for, condition, security, fractures, displacement, wear, distortion, cracks, damage, or corrosion.
  - Adequate insulation.
  - Check that the position of cables will not cause damage by chafing or heat such that the insulation becomes ineffective.
2. Examine the following electrical system components, connectors, wires and their mountings for, security, fractures, displacement, wear, distortion, cracks, damage, or corrosion.
  - Cab control panel.
  - Discharge control panel.
  - Tailgate control panels.
  - Emergency stop buttons.
  - Carriage plate proximity switches (2 off).
  - Packer plate proximity switches (2 off).
  - Reversing buzzer.
3. Examine the following lights, connectors, wires and their mountings for, security, fractures, displacement, wear, distortion, cracks, damage, or corrosion. Check that the lenses are present, are the correct colour and are not cracked or damaged or obscured.
  - Warning beacons.
  - Marker lights.
  - High level rear lights.
  - Rear lights.
  - Number plate lights.

# SCHEDULED MAINTENANCE

## 6.8.5 POWER TAKE OFF PROPELLER SHAFT (IF FITTED)

1. Examine the power take off propeller shaft universal joints for security, worn bearings, damage to grease seals and cracks.
2. Examine the power take off propeller shaft flange nuts for security and condition.
3. Examine the power take off propeller shaft slider joint and grease seal for wear and damage.

## 6.8.6 HAND WASH UNIT (OPTIONAL ITEM)

1. Check the hand wash unit for, security of mounting, damage, corrosion and leaks.
2. Check that it operates to specification.

## 6.8.7 OPERATIONAL CHECK

1. Unprop the tailgate (see Operator's Handbook).
2. Carry out a full operational check of the body and tailgate systems as described in Chapter 3, "Daily Checks".
3. Check that all lights and warning lights emit light of the correct colour, do not flicker and that their illumination is not affected by the operation of any other lamp or equipment.
4. Check that the audible warning devices, if fitted, emit sounds correct to specification.

## 6.8.8 COMPACTION MECHANISM CYCLE TIME CHECK

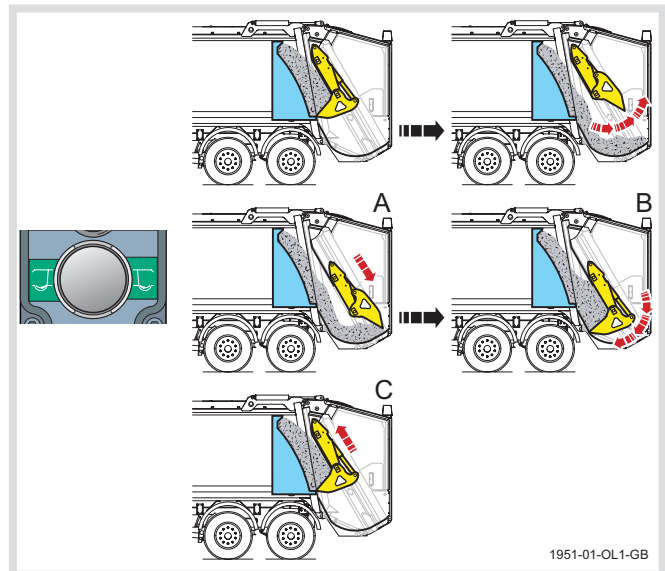
Check the compaction mechanism cycle time as follows:

1. Start engine.



**WARNING:**  
MAKE SURE THAT ALL PERSONNEL ARE CLEAR OF THE BODY, TAILGATE AND REAR OF THE VEHICLE.

2. Energise the compaction mechanism control panels (see Operator's handbook, "Energising the control panels").
3. Depress the 'Start pack cycle' push-button on the compaction mechanism control panel to activate packing cycle and leave in the fully packed position.
4. Depress the 'Start pack cycle' push-button on the compaction mechanism control panel again and time one complete cycle - it should be between 20 to 22 secs (body & hopper empty).



## 6.8.9 TAILGATE LOWER TIME CHECK

Check the tailgate lower time as follows:

1. Start engine.



**WARNINGS:**  
**MAKE SURE THAT ALL PERSONNEL ARE CLEAR OF THE BODY, TAILGATE AND REAR OF THE VEHICLE.**

**MAKE SURE THAT YOU KNOW THE HEIGHT OF YOUR VEHICLE WITH THE TAILGATE AND LIFTING DEVICE, IF FITTED, RAISED.**

2. Energise the discharge control panels and fully raise the tailgate (See Operator's handbook, "Discharging Refuse").
3. Press the 'Tailgate lower' push-button to lower the tailgate fully into its locks and check that the time taken for the tailgate to lower and engage its locks exceeds 20 seconds.

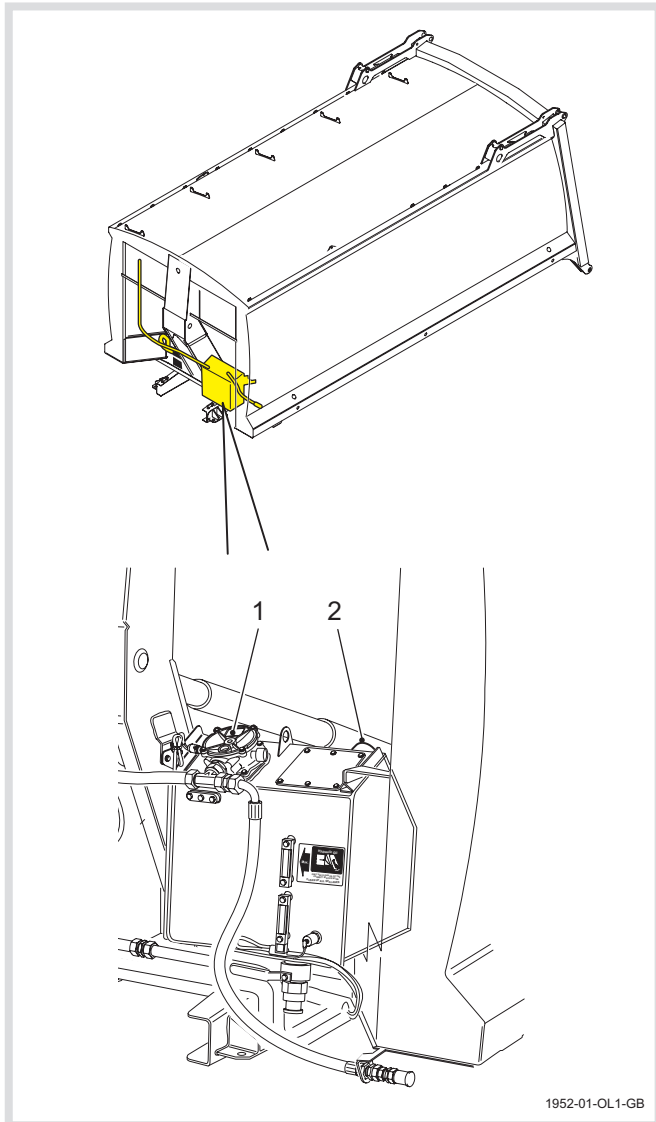
# SCHEDULED MAINTENANCE

## 6.9 12-MONTH SERVICE CHECKS

The following service checks should be carried out every 12 months or more frequently when the Refuse Collection Vehicle is operating in severe conditions.

The following service checks should be carried out in addition to the Daily Service Checks, Weekly Service Checks, 6-Week Service Checks and 12-Week Service Checks.

### 6.9.1 RENEW HYDRAULIC OIL FILTER ELEMENT AND BREATHER FILTER



**Fig. 6-5 Hydraulic oil filter and breather filter**

1. Return line oil filter.
2. Breather filter.

1. Thoroughly clean the area around the filters.
2. Immobilise the vehicle - (see "1.3 Immobilising the vehicle prior to service procedures" on page 1-4).
3. Tilt the cab (refer to chassis manufacturer's instructions).
4. Place drip trays under the body functions control valve block and the hydraulic tank to collect any spilt oil.

#### Return line oil filter

5. Remove the 4 screws securing the filter head cover plate.
6. Remove the square section sealing ring from the cover plate and fit a new one.
7. Remove the filter element and insert a new filter element.
8. Fit the filter head cover plate and tighten the screws to 20.4 Nm (15 lbf ft).

#### Breather filter

9. Unscrew and remove the breather filter.
  10. Fit the new breather filter and tighten to 20.4 Nm (15 lbf ft).
  11. Start the engine and check for leaks.
  12. Stop the engine.
  13. Clean filter assembly, remove drip trays and clean up any spillage that may have occurred.
  14. Lower the cab (refer to chassis manufacturer's instructions).
  15. Check level of oil in hydraulic oil tank and top up if required (see "4.1 To check hydraulic system oil level" on page 4-3).
  16. Dispose used filters in accordance with legislation or code of practice regarding disposal of controlled materials and oils.
- Filters are available.  
Contact Ros Roca S.A., Parts Department.

## **6.10 24-MONTH HYDRAULIC SYSTEM OIL QUALITY CHECK/ 36-MONTH HYDRAULIC SYSTEM OIL CHANGE**

The hydraulic system oil should be changed at every 36 months.

- It is recommended that at 24 months from delivery of the vehicle or from changing the hydraulic system oil, a sample of the hydraulic oil should be taken from the hydraulic tank and analysed by a qualified laboratory.
- Refer to Olympus ART Workshop manual for procedure.

# SCHEDULED MAINTENANCE

THIS PAGE INTENTIONALLY LEFT BLANK

# CONTENTS

7      OPERATIONAL MAINTENANCE .....7-2

## 7 OPERATIONAL MAINTENANCE

This Operational Maintenance chapter is used for information about maintenance procedures not covered in Scheduled Maintenance chapter, such as replacing bulbs, setting system clocks, replacing fuses, etc.. There are no procedures applicable to this Olympus ART refuse collection vehicle.



## CONTENTS

<b>8</b>	<b>GENERAL SPECIFICATION DATA.....</b>	<b>8-3</b>
8.1	TYPICAL OPERATION TIMES.....	8-3
8.1.1	CYCLE TIME .....	8-3
8.1.2	EJECTION PLATE: .....	8-3
8.1.3	TAILGATE RAISE/LOWER .....	8-3
8.2	NOISE LEVEL .....	8-3
8.3	HYDRAULIC PRESSURES.....	8-3
8.4	HYDRAULIC OILS AND GREASES .....	8-4
8.5	DIMENSIONS .....	8-5
8.5.1	BODY IDENTIFICATION LABEL .....	8-6



THIS PAGE INTENTIONALLY LEFT BLANK

## 8 GENERAL SPECIFICATION DATA

### 8.1 TYPICAL OPERATION TIMES

#### 8.1.1 CYCLE TIME

Cycle time with an empty tailgate = 20-22 seconds.

#### 8.1.2 EJECTION PLATE:

Eject Stroke = 25-35 seconds.



Ejection plate times are approximate because of friction on the tracks.

Times may vary depending on body size and type of refuse.

#### 8.1.3 TAILGATE RAISE/LOWER

Tailgate Raise = 17-21 seconds.

Tailgate Lower = 20-25 seconds.

### 8.2 NOISE LEVEL

The maximum A-weighted sound pressure level at operator's work-stations is less than or equal to 85dB(A).

### 8.3 HYDRAULIC PRESSURES



#### WARNING:

IF A FAULT OCCURS WITH THE MECHANISM OR THE FUNCTION TIMES ARE ERRATIC REPORT THE FAULT TO SUPERVISION IMMEDIATELY. DO NOT ATTEMPT TO MAKE ANY HYDRAULIC ADJUSTMENTS AS THIS WILL COMPROMISE SAFETY AND NULLIFY ANY WARRANTY AGREEMENTS WITH ROS ROCA S.A.

# GENERAL SPECIFICATION DATA

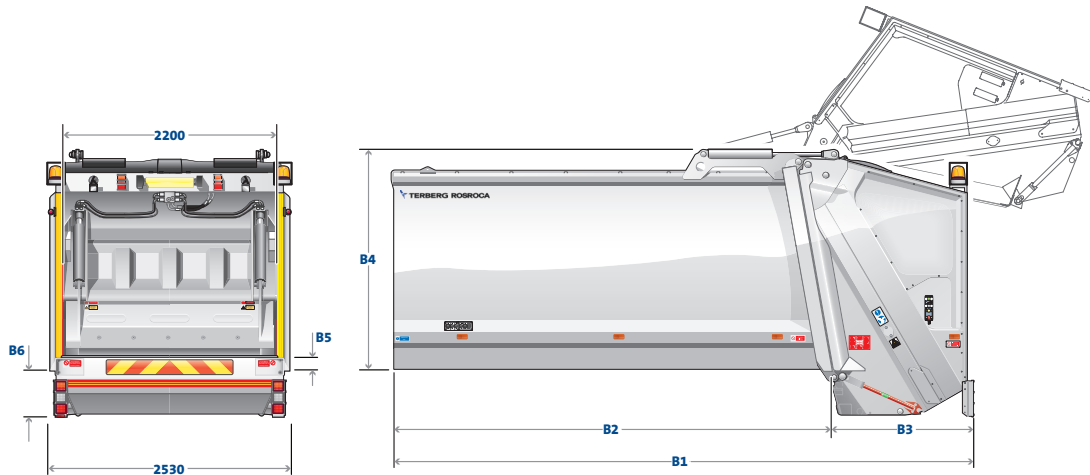
## 8.4 HYDRAULIC OILS AND GREASES

RECOMMENDED HYDRAULIC OIL				
Temperature range	BS 4231 Viscosity grade	ISO Oil type	Manufacturer's specification	Note
-30° to +80°	32	HM	Q8 Foil 32	Biodegradable viscosity 46 oil is used where specified by customers.

RECOMMENDED GREASES	
Application	Manufacturer's specification
General lubrication	Shell Retinax A BP Energol LS2 or L2 Castrol LM Total EP2 Energol HLP32
Carriage plate/Packer plate pivot pins	Fuchs Renolit Aqua 2 or similar lubricant to DEF STAN 91-34/1

## 8.5 DIMENSIONS

### OLYMPUS ART - Smooth Body RCV



MODEL	OL-13W	OL-16W	OL-17W	OL-19W	OL-20W	OL-21W	OL-23W	OL-25W	OL-27W	
GVW chassis (TN) (1)	15-16	18-19	18	26	26	26	26	26	32	
Body useful capacity (m³)	13,0	15,6	16,5	18,6	20,0	21,4	23,2	25,6	26,5	
Recommended wheelbase: 1st to 2nd axle (Approx. mm)	3400-3600	3800-4000	4100-4200	3300	3500	3800-4000	4100-4200	4500	(3)	
Recommended wheelbase: 2nd to 3rd axle (Approx. mm)	—	—	—	1350-1400	1350-1400	1350-1400	1350-1400	1350	(3)	
Body weight open back (Kg)	5005	5191	5275	5442	5542	5620	5782	5986	6060	
DIN standard lifter frame + rave rail to suit split lifter. Consult binlift manufacturer for lifter details (Approx. Kg)						180				
Subframe (Kg)	161			187						
Footboards (Kg)						70				
Overall length (mm)	B1	5035	5585	5785	6235	6535	6835	7235	7735	7935
Overall length - Tailgate raised (mm)	B1	6115	6665	6865	7315	7615	7915	8315	8815	9015
Body floor length (mm)	B2	3460	4010	4210	4660	4960	5260	5660	6160	6360
Tailgate floor length (mm)	B3					1575				
Body height included subframe (mm) (2)						2490				
Body height included subframe - Tailgate raised (mm) (2)	B4	4145								
Rave rail height relative to chassis height (mm)	B5	0								
Underside of tailgate relative to chassis height (mm)	B6	-480								
Maximum external width (mm)						2530				
Tailgate internal width without bin-lifter (mm)						2200				
Hopper volume std rave rail 1.05 m high (m³)						1,51				
Hopper volume with rail rave up - 1.4 m height (m³)						2,6				
Compaction mechanism swept volume (m³)						2,8				
Compaction mechanism cycle time (seconds)						18				
Absorption speed (m³/min)						9,2				

**NOTE:** This document and the information or advice given to the customer is merely for guidance and does not constitute any contractual obligation. Nor can any obligation, guarantees or responsibility be taken from it on the part of the company. All specifications are subject to manufacturers tolerances. An allowance of +/- 2% should be made for all weights. Additional equipment may alter dimensions and weights quoted.

- (1) Subject to legislation in territory.  
 (2) Height profile false chassis 115 mm.  
 (3) 4-axle chassis configuration (8X4) to consult.

Av. Cervera s/n 25300 TÀRREGA (LLEIDA) SPAIN  
 Tel: + 34 973 50 81 00 Fax: + 34 973 50 81 30  
[www.rosroca.com](http://www.rosroca.com) – [rosroca@rosroca.com](mailto:rosroca@rosroca.com)

RR-OL-WIDE\_NON-CE\_ENG\_OB\_01

# GENERAL SPECIFICATION DATA

## 8.5.1 BODY IDENTIFICATION LABEL

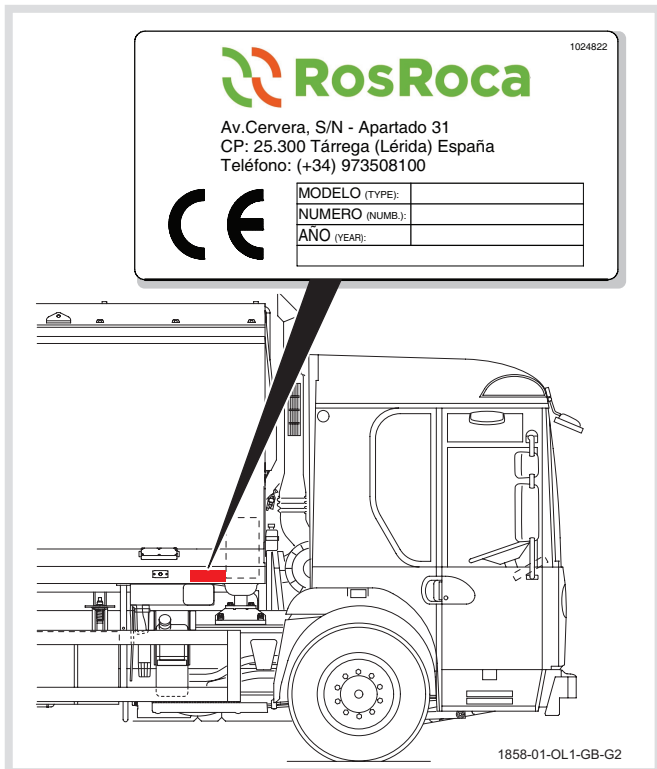
The body identification label is attached to the front of the body on the lower right-hand corner.

The information on the label is shown below:

Body Type.

Serial Number.

Order Number.



# CONTENTS

9 SUPPLEMENTARY INFORMATION.....9-2

## 9 SUPPLEMENTARY INFORMATION

### Supplementary information/ owners comments

This page has been left blank to enable supplementary information to be incorporated in the handbook or for the owner to make notes.



## **Supplementary information/ owners comments**

This page has been left blank to enable supplementary information to be incorporated in the handbook or for the owner to make notes.

# SUPPLEMENTARY INFORMATION

## Supplementary information/ owners comments

This page has been left blank to enable supplementary information to be incorporated in the handbook or for the owner to make notes.

## **Supplementary information/ owners comments**

This page has been left blank to enable supplementary information to be incorporated in the handbook or for the owner to make notes.

# SUPPLEMENTARY INFORMATION

## **Supplementary information/ owners comments**

This page has been left blank to enable supplementary information to be incorporated in the handbook or for the owner to make notes.

**A**

Access to roof — 1-3

**C**

Cleaning — 5-3

Body drain — 5-4

Cleaning the leachate tank — 5-6

Daily cleaning — 5-5

Drain — 5-4

Pressure washing — 5-6

Tailgate drains — 5-4

**D**

Daily safety checks — 3-3

**F**

First aid and emergency treatment — 2-9

Burns — 2-9

Cuts and wounds — 2-9

Workshop first aid equipment — 2-9

**G**

General specification data — 8-3

Body identification label — 8-6

Dimensions — 8-5

Hydraulic oils and greases — 8-4

Hydraulic pressures — 8-3

Noise level — 8-3

Typical operation times — 8-3

Cycle time — 8-3

Ejection plate — 8-3

Tailgate raise/lower — 8-3

**H**

Hydraulic system oil level — 4-3

To check hydraulic system oil level — 4-3

Topping up hydraulic oil - bulk oil supply — 4-6

Topping up hydraulic oil - using hand pump — 4-6

**I**

Immobilising the vehicle prior to service procedures — 1-4

Introduction — 1-3

**O**

Operational maintenance — 7-2

**R**

Responsible technician, the key holder — 2-5

Returning the vehicle to service — 2-9

**S**

Safety precautions — 1-3

Safety precautions and procedures — 2-3

Cleaning a vehicle — 2-5

Contact with plastic material residues after fires — 2-6

Disconnection and reconnection of electrical components — 2-7

Environmental protection precautions — 2-6

Fasteners — 2-9

General electrical precautions — 2-7

General workshop precautions — 2-6

Hot components — 2-8

Hydraulic oil and filters — 2-8

Hydraulic systems — 2-8

Immobilising the vehicle — 2-5

Manual handling and movement of loads — 2-6

Moving or rotating parts — 2-9

Personal hygiene — 2-4

Precautions – workshop procedures and practices — 2-5

Pressure washing — 2-5

Protective clothing — 2-4

Responsible technician, the key holder — 2-5

Returning the vehicle to service — 2-9

Welding on or near the vehicle — 2-7

- Safety symbol, Warnings, Cautions and Notes — **2-3**
- Scheduled maintenance — **6-3**
  - 6-Week service checks — **6-6**
    - Check the security of body mounting bolts — **6-6**
    - Clean the tailgate proximity switches — **6-7**
  - 12-Month service checks — **6-12**
    - Renew hydraulic oil filter element and breather filter — **6-12**
  - 12-Week service checks — **6-8**
    - Body checks — **6-8**
    - Compaction mechanism cycle time check — **6-10**
    - Electrical system checks — **6-9**
    - Hand wash unit (Optional item) — **6-10**
    - Hydraulic system components checks — **6-9**
    - Operational check — **6-10**
    - Power Take Off propeller shaft (if fitted) — **6-10**
    - Tailgate checks — **6-8**
      - Tailgate lower time check — **6-11**
  - 24-Month hydraulic system oil quality check / 36-Month hydraulic system oil change — **6-13**
- Introduction — **6-3**
- Lubrication — **6-4**
- Operational Maintenance — **6-3**
- Routine Maintenance — **6-3**
- Warnings — **6-3**
- Weekly Service Checks — **6-5**
  - Clean the body and tailgate — **6-5**
  - Lubricate hinges and linkages — **6-5**
- Supplementary information — **9-2**

## W

- Warning labels — **3-11**