

OPERATION MANUAL
ISSUED DECEMBER 2024

## **M** WARNING

Failure to follow all instructions and safety precautions in this manual, in the Service Manual, in other manufacturers' manuals and on the safety decals attached to the product could result in serious injury or death to operators or bystanders and/or damage to property.

DO NOT operate this vehicle before you READ and UNDERSTAND this Operation Manual, the Service Manual for this unit, other applicable manufacturers' manuals, and the safety decals on the product.

Each operator of this unit must read and understand all directions in this manual before they first operate this vehicle.

Keep this manual in the cab for new operators and to remind all operators about safe use.



© 2024 The Heil Co. TP1NYDP5-OM-1224



#### **READ THIS MANUAL!**

EVERY PERSON who will OPERATE, MAINTAIN, REPAIR, OR OTHERWISE WORK with the Heil unit MUST READ AND UNDERSTAND this entire Operator's Manual before starting the engine or activating any switches or controls. MAKE SURE to read the Service Manual for the unit BEFORE you do any maintenance or repair procedures.

**ALL USERS** of this equipment must be trained professionals who understand how the machine operates and know how to avoid the risks associated with driving the vehicle and with picking up, compacting, and dumping refuse in an ever-changing traffic environment.

If you do not understand an operation or instruction, seek additional help or instruction from a qualified source **BEFORE** you operate the unit.

## **TABLE OF CONTENTS**

## Introduction

Section Preview	
How to Use This Manual	5
To the Owner	6
To the Operator	<del>7</del>
To the Operator (Continued)	8
Warranty Claims and Inquiries	9
Customer Service and Repair Parts Contact Information	10
Models	11
Serial Plate Location	12
Reading the Serial Plate	13
Product Nomenclature (Continued)	14
Product Nomenclature (Continued)	15
Glossary	19
Safety Messages and Decals	
Section Preview	24
Precautionary Statements	25
General Safety Precautions	26
General Safety Precautions (Continued)	27
Decals	31
Decal Placement	32
Decal Images	37
Care of Decals	49
Lock-Out/Tag-Out Procedure	
Section Preview	52
Locking Out the Unit	
Locking Out the Unit (Continued)	
Locking Out the Unit (Continued)	
= '	

## **TABLE OF CONTENTS**

## **Controls, Switches, and Indicator Lights**

Section Preview	60
Controls / In-Cab Control Panel	61
In-Cab Control Panel (Continued)	62
Standard Outside Controls	63
Standard Outside Controls (Continued)	64
Standard Outside Controls (Continued)	65
Standard Outside Controls (Continued)	66
Standard Outside Controls (Continued)	67
Standard Outside Controls (Continued)	68
Standard Outside Controls (Continued)	69
Standard Outside Controls (Continued)	70
Standard Outside Controls (Continued)	71
Auxiliary Quick Disconnect Hook-Up	72
Body and Tailgate Props	
Section Preview	74
Factory Body Props / Propping the Tailgate	75
Propping the Tailgate (Continued)	76
Daily Checklist	
Body Daily Checklist	78
Before Going on Route	
Section Preview	82
Daily Checklist	83
Before Starting a Route / Warming up the Hydraulic Oil	
Check the Hydraulic Oil Level	
Hydraulic Oil Tank with Sight Gauge	86
Cycle All Hydraulic Functions	87

## **TABLE OF CONTENTS**

Check the Traveling or "In-transit" Position	88
Check the Traveling or "In-transit" Position (Continued)	89
On-Route Operation Procedures	
Section Preview	92
Driving to Pick-up Locations	93
Before Loading (Continued)	94
Loading Refuse Manually	95
Loading Refuse Manually (Continued)	96
Packing On-The-Move	97
Leaving the Route for the Landfill/Transfer Station	98
Landfill/Transfer Station/Recycle Center Procedures	
Section Preview	100
Overview of Landfill/Transfer Station/Recycle Center Procedures / Unlocking and Raising the Tailgate	101
Unlock and Raise the Tailgate (Continued) / Unload Refuse	102
Clean and Inspect the Tailgate / Lower and Lock the Tailgate	103
Lower and Lock the Tailgate (Continued) / Clean and Inspect the Hopper and Packer Panel	104
Sump Doors and Washout System / Preparing to Return to Route	105
End of Day Procedures	
Section Preview	
Parking the Unit	109
Index	111

NOTES:

# NYC DuraPack® 5000

**HIGH-COMPACTION REAR LOADER** 

OPERATION MANUAL
ISSUED DECEMBER 2024
TP1NYDP5-OM-1224

NOTES:

# SECTION 1 INTRODUCTION

#### **PREVIEW**

Read this section to learn about:

- The responsibilities of the owner, the operator, and the mechanic
- Warranty information
- Telephone numbers and website URL for parts, technical support, warranty claims, training and manuals
- Identifying the different models
- Identifying the left (street side) of the unit
- The unit serial plate
- Various parts of the unit

#### **HOW TO USE THIS MANUAL**

#### Product Variance

The location and appearance of the controls on your unit may be different than those shown in this manual due to chassis cab changes. Make sure you know the location of the controls and how you operate the controls on your unit before operation.

#### Manual Sections

This manual is divided into twelve (10) sections.

- 1. Introduction
- 2. Safety Messages and Decals
- 3. Lock-Out/Tag-Out Procedures
- 4. Controls, Switches, and Indicator Lights
- 5. Body and Tailgate Props
- 6. Daily Checklist
- 7. Before Going on Route
- 8. On-Route Operation Procedures
- 9. Landfill/Transfer Station/Recycle Center Procedures
- 10.End of Day Procedures

## **Terminology**

This manual uses terminology that is defined in the **Glossary** which is in Section 1, Introduction.

#### **Directives**

When we give directions for using the equipment, we capitalize key words. These words are usually a command followed by a result.

For example, "MOVE the body raise switch to LOWER ...".

#### Use of Bold and CAPITAL Letters

We also put some words in **BOLD AND CAPS** for emphasis, usually related to safety or something of other importance, such as "**MAKE SURE** you close the side doors".

We put some words in just bold for emphasis, such as "All warranty repairs **must** be performed by ...".

Each DANGER, WARNING, and CAUTION notice precedes its applicable text.

#### TO THE OWNER

This manual is designed to help ensure safe, efficient and proper operation of The Heil Co. d/b/a Heil Environmental ("Heil") NYC DuraPack® 5000 Rear End Loader (REL) refuse collection vehicle (or the unit).

The manual will familiarize you with the unit and will give you proper operating procedures and tips.

For chassis operation and maintenance instructions, see the Chassis Owner's Manual and the NYC DuraPack® 5000 Service Manual.

As the owner, you have several responsibilities:

- You must complete and return the warranty registration for the unit to Heil.
- You must make sure that each operator has the proper driver's license.
- You must make sure that the operator does not operate the unit under the influence of drugs or alcohol.
- You must make sure that the unit is properly maintained to meet all local, state and federal requirements along with FMCSA (Federal Motor Carrier Safety Administration) and DOT (Department of Transportation).
- You must keep the vehicle maintained and properly adjusted to meet the manufacturer's standards and recommendations.

- You must keep accurate records of daily inspections, breakdowns, malfunctions, maintenance and repairs of the unit.
- You must make sure that repairs are made that may affect the safe operation of the unit before it is made available for operation.
- You must provide adequate lighting on the unit for safe operation under low light or night conditions.
- You must provide adequate training for each operator and mechanic that will operate the unit BEFORE an operator goes on route or BEFORE a mechanic performs maintenance or repair procedures.
- You must determine if an operator or mechanic has difficulties reading or understanding this manual.
   When a person has difficulties reading or understanding this manual, you must provide adequate assistance so that the person does understand the material in this manual.
- You must make sure that each operator uses the equipment on a route as given in the instructions of this manual and other manufacturers' manuals.
- You must provide on-going training for each operator and mechanic that operates the unit.
- You must make sure that this manual stays with the vehicle at all times.

Properly operated and maintained, your NYC DuraPack® 5000 unit should give you years of low-cost, trouble free service.

#### TO THE OPERATOR

## **A** DANGER

Do not operate the unit or perform repair or maintenance procedures on the unit until you read and understand all of the instructions in this manual. Failure to do so may result in injury or death to operators or bystanders.

## **NOTICE**

For Compressed Natural Gas (CNG) units, this Operation Manual should be used in conjunction with any associated CNG System Manufacturer's Operation and Maintenance Manuals. Always read and understand all associated manuals alongside the Heil Parts and Service Manual and Heil Operation Manual.

As the operator of the unit, you have several responsibilities:

- You must have a valid driver's license.
- You must understand and follow all manufacturers' instructions for equipment operation.
- You must observe pertinent laws and regulations.
- Do not use drugs or alcohol while you operate the unit.

- You must read, study and understand all procedures and requirements of this Operation Manual before you operate the unit for the first time. If you do not understand or have difficulty reading this manual, YOU MUST tell the owner or designated person before you operate the unit. DO NOT operate the unit until you understand the procedures and requirements of this manual.
- You must receive proper training before you operate (or service and maintain) the unit. If you have not been trained, you must inform the owner.
- You must perform a daily inspection of the unit before you go on route. Refer to the **Daily Checklist** 777.
- You must make sure that all decals and labels are clean and readable.
- You must report to the owner (or the designated person) any and all deficiencies, malfunctions or problems you find during the daily inspection.
- You must read, understand and obey all safety messages and decals that are on the outside or in the cab of the unit.

## TO THE OPERATOR (CONTINUED)

- Always use your employer's Lock-Out/Tag-Out procedures. If your employer does not have Lock-Out/Tag-Out procedures, use the Lock-Out/Tag-Out
   Procedure 53 in this manual.
- Before you start the engine or operate the unit for the first time
  - o You must clear the area of other people.
  - You must learn and practice safe use of all controls and indicators before you operate the unit in a collection route environment or before you do repair or maintenance procedures.
- Before each time you start the engine or operate the unit, you must clear the area of other people.
- Before you operate the unit in reverse, you must make sure the area behind the unit is clear of other people, vehicles or other obstructions.
- You must make sure the unit is on hard, stable ground when you unload refuse at the landfill or transfer station.

#### NOTES:

#### WARRANTY CLAIMS AND INQUIRIES

The HEIL ENVIRONMENTAL WARRANTY STATEMENT is printed on the inside, back cover of this manual. Should a failure occur that is covered by this warranty, contact the nearest Heil dealer for warranty repair unless otherwise authorized by Heil.

For all parts, warranty claims, and inquiries, please give the dealer or service center the unit's model and serial number located on the body serial plate. See **Serial Plate Location page** for the location of the body serial plate.

#### **CONTACT INFORMATION**

#### **Customer Care**

Phone: 866-275-4345

#### **Technical Service**

Phone: 866-310-4345

#### **Parts Central**

Phone: 800-528-5308

4301 Gault Avenue North Fort Payne, AL 35967 www.heil.com

#### **MODELS**

The NYC DuraPack® 5000 is a Rear End Loader (REL) and has one body model, the eject model. See the figure below.

The blade and upper panel open the hopper for loading refuse into the hopper, sweep the refuse into the body and compacts the refuse.

The unit has an eject mode for dumping the refuse from the body. You remove the refuse from the body by raising the tailgate and then operating the ejector panel which pushes the refuse from the body.

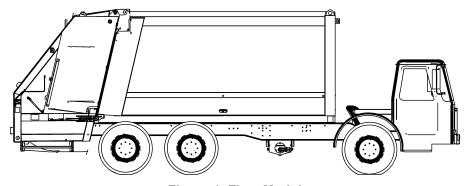


Figure 1. Eject Model

#### SERIAL PLATE LOCATION

You determine the sides of the unit by facing the direction of forward travel. The left side is the "streetside" and the right side is the "curbside". The figure below shows the locations of the serial plates on the street side of the unit's body and tailgate. See the next page for a description of the information that is on the serial plate.

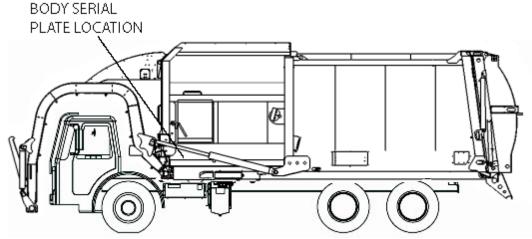


Figure 2. Serial Plate Locations

#### READING THE SERIAL PLATE

The serial plate is the "birth certificate" of the unit. See the figure below.



Figure 3. Reading the Serial Plates

Information stamped in the boxes on the serial plate indicates:

Model number:

612-nnnn ("n" is any single-digit number)

Unit's unique serial number

Body size (cu. yd.)

Date of manufacture (last number of the year followed by the number of the day of the year, e.g. J078 is year 2018 and the 78th day of 2018).

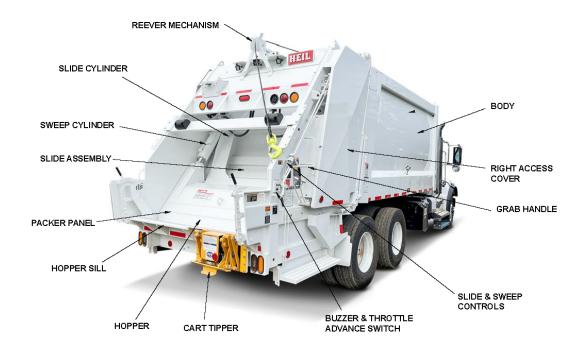
#### **NOTICE**

The code for the year of manufacture is in accordance with FMVSS 115. See the following table.

Year of Manufacture			
Year Code	Year	Year Code	Year
J	2018	W	2028
K	2019	Х	2029
L	2020	Υ	2030
М	2021	1	2031
N	2022	2	2032
Р	2023	3	2033
R	2024	4	2034
S	2025	5	2035
Т	2026	6	2036
V	2027	7	2037

#### PRODUCT NOMENCLATURE

The figure below shows the major components and their typical location on the unit. See the following pages for brief descriptions of each component shown below.



**Figure 4. Product Nomenclature** 

## PRODUCT NOMENCLATURE (CONTINUED)

# A DANGER

Make sure the unit is in the Lock-Out/Tag-Out mode before you enter the body. When the unit is not in the Lock-Out/Tag-Out mode and a person is in the body, the packer/ejector panel and/or diverter panels can be operated. Serious injury or death may occur if the packer/ejector panel moves while a person is in the body.

## A DANGER

When available, use the side door for entry to the body. When there is no side door, use the front head for entry to the body. Make sure the unit is in the lock-out mode before you enter the body. When the unit is not in the lock-out mode and a person is in the body, the ejector panel, slide assembly or packer blade can be operated. Serious injury or death may occur if the ejector panel, slide assembly or packer blade moves while a person is in the body.

**Body** – The body stores the compacted refuse until you dump the refuse at the landfill. **DO NOT** enter the body from the hopper. Use the space available at the front head or, if equipped, the side access door.

Cab Controls – The standard cab control panel has two toggle switches to operate the pump and the throttle advance; has indicator lights for the pump and tailgate; and the space for two options: a filter bypassed indicator light and a strobe light switch. See Cab Controls, Switches and Indicator Lights of the different controls that may be installed in your unit.

# A DANGER

Stand clear when the ejector panel is in motion. Keep side access door closed when ejector panel is in motion. Failure to obey may result in severe injury or death.

#### NOTICE

Do not use the ejector panel to pack refuse against a closed tailgate (backpack). Packing refuse against a closed tailgate may result in damage to body or ejector cylinder.

## PRODUCT NOMENCLATURE (CONTINUED)

Ejector Panel & Cylinders - The ejector panel and cylinders push the refuse out of the body when the tailgate is OPEN.

**Front Head** – The open area at the front of the body. You can see the ejector panel from the cab through the front head. Use this opening to access the body, **ESPECIALLY** when the unit does not have the optional side access door.

# **A** WARNING

**BE CAREFUL** at all times when you use the ladder rungs. Maintain good balance with two feet and one hand, or one foot and two hands, firmly in place.

# A DANGER

Do not enter the hopper unless the unit is in the Lock-Out/Tag-Out mode. When the unit is not in the Lock-Out/Tag-Out mode, the packer/ejector panel can be operated. DEATH or SERIOUS INJURY may occur if the packer/ejector panel moves while a person is in the hopper.

**Hopper** – The hopper is the refuse loading chamber of the tailgate. NEVER use the hopper as an entrance to the body.

**Hopper Sill** – A lip on the hopper over which you dump the refuse into the hopper. The lip provides a resting spot for manual loading of residential refuse containers. NEVER climb or stand on the hopper sill.

Hydraulic Oil Tank - The tank is the reservoir for the hydraulic oil which supplies all hydraulic cylinders described above.

# **A** WARNING

Operating the unit's controls with a suspended load, such as a raised tailgate or a container on a lift mechanism, will allow the load to move even when the hydraulic pump is OFF.

**Hydraulic Pump** – The unit's hydraulic pump provides oil pressure for the hydraulic system. It is located either in front of the unit's engine or underneath the unit, powered by the transmission through a Power Take-Off (PTO). With a front-mount pump, the operator turns the pump ON and OFF as needed with the SYSTEM POWER switch located on the in-cab control panel.

## PRODUCT NOMENCLATURE (CONTINUED)

# A DANGER

The packer blade and slide assembly are dangerous. They can cause serious injury or death if a person is inside the hopper. Make sure no one is inside the hopper before you begin a packer function. Put the unit in the lock-out mode if a person is in the hopper.

**(Packer) Blade** – You MOVE the packer blade UP while you move the slide assembly OUT to load refuse into the hopper. You MOVE the packer blade DOWN while you move the slide assembly IN to sweep refuse from the hopper towards the body.

**Packer Panel** – The packer panel is comprised of the blade and upper panel (and other parts). The packer panel opens to load refuse into the hopper, moves refuse from the hopper into the body and compacts it.

**Side Access Door** – The optional side access door is located on the front, street side of the body. Use this door for access to the body for cleaning or other maintenance tasks. **MAKE SURE** the unit is in lock-out condition and the keys are removed from the ignition and in the operator's control **BEFORE** you enter the side door. Always use the step assembly when you use the side access door. **BE CAREFUL** at all times when you use the step assembly. Maintain good balance with at least two feet and one hand, or one foot and two hands, firmly in place at all time.

**Slide (Upper Panel) Assembly** – You move the slide assembly OUT while you move the packer blade UP to load refuse into the hopper. You move the blade IN while you move the packer blade DOWN to push the refuse into the body.

**Slide/Blade Controls** – The operator uses these controls to operate the slide assembly and the packer blade to open the hopper to load refuse and to move refuse from the hopper into the body.

# **A** DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you raise or lower the tailgate.

## PRODUCT NOMENCLATURE (CONTINUED)

**Tailgate** – Raise the tailgate at the landfill or transfer station to unload the refuse.

A red light and an alarm inside the cab let the operator know when the tailgate is OPEN (UP). The TAILGATE OPEN red light illuminates (is ON) and the alarm sounds when the tailgate is RAISED. The light is OFF and the alarm stops when the tailgate CLOSED (DOWN).

**Tailgate Left and Right Access Covers** – In normal operation, the tailgate doors protect the operator from various exposed pinch points.

# A DANGER

Always prop a tailgate when you leave it raised for maintenance, service or cleaning procedures. Any part of your body between the unit's body and the tailgate while you prop the tailgate or when the tailgate is propped is dangerous. Serious injury or death may occur if any part of your body is between the tailgate and the body if the tailgate suddenly closes.

**Tailgate Props** – Always use both tailgate props, one on each side of the unit, when you raise the tailgate for maintenance or service procedures.

**Tailgate Cylinders** – You use these cylinders to RAISE the tailgate before you unload the compacted refuse at the landfill. After you unload the refuse, you use the cylinders to LOWER the tailgate.

Throttle Advance – The throttle advance is automatically engaged during the tailgate packing cycle.

TERM	DEFINITION
accident	An incident that results in unintended harm.
auto neutral (force to neutral)	A feature that allows an operator to place the transmission in neutral and remain in neutral until commanded to go into drive.
bin	The refuse collection container
blade	The assembly that moves refuse into the body. The blade works with the upper panel to open the hopper, move refuse into the body, compact the refuse and to close the hopper.
body	The complete body assembly or the area of the body where the refuse is stored.
CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
collapsed position	The fully retracted position of a cylinder
DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
extend/EXTEND	Make a cylinder rod move out its base / Command to move the packer panel towards the body
front head	The part of the body that allows access to the body from the front of the body. This is the ONLY access to the body when the unit does not have an optional side access door.
FULLY RETRACTED POSITION	The packer/extend cylinder is fully retracted and the packer panel is all the way to the front of the hopper. May also be referred to as "Home Position" or "Front Head".
harm	An action that causes death, injury or property damage.
hazard	A potential source of harm.
hopper	The loading chamber of the unit in front of the packer panel where you dump the refuse material.
illuminate	Make a lamp shine light (the lamp is on).

TERM	DEFINITION
incident	An unintended and undesired event that has the potential to harm.
LATCHED	The condition when the tailgate is fully CLOSED, thereby locking the tailgate.
LOAD POSITION	Applicable to Rear End Loaders (RELs), the packer panel is UP and the slide assembly is OUT. This opens the hopper for loading.
lower/LOWER	Move the lift arms, forks, body or tailgate down. / Command to move the lift arms, forks, body or tailgate down.
may	You are allowed to do the action, but it is not mandatory. It is understood to be permissive.
must	The action is mandatory.
NOTICE	Alerts you to practices not related to personal injury, such as damage to the unit or other equipment.
off/OFF	When a light or lamp does not illuminate / The position of a switch or other control to stop a function
on/ON	When a light or lamp illuminates / The position of a switch or other control to start a function
operator	Any person who uses the unit and its equipment. One who controls the operation of various unit accessories and mechanisms, loads material, performs functions such as operating the loader, cart tipping and packing of wastes or recycled products, and who may also drive the unit along the route during the collection process. The operator may also be the driver.
(packer) blade	The packer assembly that moves refuse into the body. The blade works with the slide to close the hopper, to move refuse into the body and to open the hopper
packer panel	The packer panel is comprised of the blade and the upper panel. The packer panel moves refuse out of the hopper and compacts it into the body.

TERM	DEFINITION
PACK POSITION	Applicable to Rear End Loaders (RELs) The packer blade is DOWN and the slide assembly is IN. The operator uses this position, repeated as necessary, to sweep refuse from the hopper and compact the refuse into the body.
PTO	Power Takeoff
raise/RAISE	Move the tailgate up / Command to move the tailgate up
REL	Rear End Loader
retract/RETRACT	Make a cylinder rod go into its base / Command to move the packer panel towards the hopper
RPM	Revolutions Per Minute
should	The action is advised.
side access door	The side access door is located on the street side of the unit. This is the preferred access into the body. ALWAYS <b>Lock-Out/Tag-Out</b> 153 the unit BEFORE entering the body.
tailgate access covers	Covers on each side of the tailgate that protect an operator from pinch points during normal operation.
throttle advance	On Rear End Loaders (RELs), when the unit is in neutral, you use the throttle advance to increase the RPMs of the engine which results in greater flow of hydraulic fluid for operation of the tailgate, ejector and optional container lifting devices.
unit	The Heil NYC DuraPack <sup>®</sup> 5000 refuse collection vehicle referred to in this manual.
UNLATCHED	The side access door is not closed or secured.
upper panel	The assembly that moves refuse into the body. The upper panel works with the blade to open the hopper, move refuse into the body, compact the refuse and to close the hopper.

TERM	DEFINITION	
WARNING	Indicates a hazardous situation, which if not avoided, could result in death or serious injury.	

# SECTION 2 SAFETY MESSAGES AND DECALS

#### **PREVIEW**

Read this section to learn about:

- General safety precautions and safety precautions for the safe operation and maintenance of the unit
- The safety precautions for NOT towing another vehicle or machine
- Safety decals on the unit

#### PRECAUTIONARY STATEMENTS

Read this entire manual and especially this safety section before you operate the vehicle. Failure to follow these important precautions could result in serious injury, death, or property damage.



This safety alert symbol indicates important safety messages in this manual and on safety decals attached to the equipment. Make sure you read all of these messages and follow the instructions and precautions.

In the general text of the manual and in the safety labels attached to the product, signal words indicate the type and seriousness of risk that you could encounter if you do not follow the precautions. The signal words and their definitions follow:



DANGER indicates a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY.

# **A** WARNING

WARNING indicates a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.

# **A** CAUTION

CAUTION indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE INJURY.

## **NOTICE**

NOTICE addresses practices not related to personal injury, such as property damage or damage to the equipment.

The following pages provide a summary of some of the more important safety precautions that are in this manual. There are additional safety precautions in other sections of this manual that are not contained in this section. You must also read, understand and follow those messages.



# A GENERAL SAFETY PRECAUTIONS

- DO NOT operate the unit under the influence of alcohol or drugs or when extremely tired or when you are not alert, as this may result in an accident that can cause serious injury or death.
- DO NOT operate the unit unless you have the proper training and vehicle operator license.
- ALWAYS carry and maintain a fire extinguisher and first aid kit in the unit. MAKE SURE you know how to use them.
- CLEAN AS NECESSARY any safety decals that you cannot read at a safe viewing distance from the hazard because of dirt. If any decals are illegible from damage or wear, REPLACE them IMMEDIATELY. Get decals from your Heil dealer or Heil.
- **DO NOT** use this refuse collection vehicle to TOW another vehicle or equipment. It IS NOT DESIGNED or equipped to tow another vehicle or other equipment. Towing another vehicle or equipment may result in injury or death to the operator or other people or damage to the unit.
- MAKE SURE all individuals are clear of any moving parts, mechanisms or components of the unit before you operate the controls.

- **DISENGAGE** the PTO or PUSH the SYSTEM POWER switch so the pump shuts off when you are not using the unit, when you are repairing the unit, when you are working on the unit, or when traveling in the unit for longer than two minutes.
- ENGAGE the PTO or PULL the SYSTEM POWER switch ONLY when you are on route OR as necessary to perform repairs.
- When the unit is stored or not in use, you MUST do the following:
  - SET ALL lift cylinders (including the body raise cylinders) to the collapsed position.
  - For units with manual transmissions. DISENGAGE the PTO and PUSH the PUMP switch so it shuts off the pump.
  - For units with automatic transmissions PUSH the SYSTEM POWER switch so the pump shuts off.
  - o **REMOVE** the key from the ignition. This helps prevent tampering by unauthorized persons.
  - o Refer to Lock-Out/Tag-Out Procedure 531.
- You must be attentive at all times while you operate the controls and be ready to stop or reverse the function if necessary.



## A BEFORE OPERATING THE EQUIPMENT

- DO NOT operate or service this machine until you are fully trained and have read and understand this entire manual.
- NEVER operate the unit UNLESS you are fully knowledgeable of all control functions. See the Controls, Switches, and Indicator Lights 59 In-Cab Display and Controls of this manual.
- MAKE SURE BEFORE you operate the vehicle or its controls that all individuals are at a safe distance away from the unit.
- DO NOT operate the unit when it needs service or repair.
- DO A VISUAL CHECK at the beginning of each shift of the unit and run it through several cycles to find fluid leaks, broken, missing or malfunctioning, and excessively worn components (including hoses). See the Daily Checklist section 777 of this manual. If you find leaks, broken, missing or malfunctioning parts, immediately stop and get the condition repaired or serviced.



## **A** USE PERSONAL PROTECTIVE EQUIPMENT

- ALWAYS WEAR the proper safety equipment, such as hard hats, safety shoes, protective eye wear, reflective clothing and gloves. Confirm with the owner/operator that you are using proper safety equipment.
- WEAR PROPER EYE PROTECTION and avoid contact with oil if possible whenever you work on or about hydraulic lines or components. **NEVER** check for oil leaks with your bare hands.



## BEWARE OF OVERHEAD OBSTRUCTIONS

- KNOW the clearance required for ALL overhead obstructions (such as viaducts and bridges) that you may encounter when you drive the unit. See the decal in the chassis cab for your unit's overall height.
- **NEVER** drive the unit under any overhead obstruction of unknown height clearance.
- Become familiar with your route. Be aware of all overhead trees and obstructions that could cause problems during refuse collection.
- CHECK the height of the unit after you do any modifications to the chassis suspension. Any chassis suspension modification may change the height of the unit. See Tables 1 and 2.

- LOOK UP AND LIVE. MAKE SURE there is enough clearance between a lowered or raised container and overhead power lines. It is not necessary for the unit or container to touch the electric cable for the electricity to pass through the unit. See Tables 1 and 2.
- STAY IN THE CAB and KEEP AWAY FROM ALL METAL PARTS OF THE UNIT if the unit does touch a power line. STAY IN THE UNIT UNTIL HELP ARRIVES.

#### **OVERHEAD CLEARANCES**

## **NOTICE**

Table 1 and 2 is in accordance with OSHA 29CFR 1910.333. (Also refer to ANSI Standard B30.5-2004, 5-3.4.5.) If local rules and laws require more clearance, you must follow those.

Table 1. Overhead Clearances When Operating the Unit

Voltage of Electric Line	Minimum Clearance
50,000 or less	10 feet (3 m)
Above 50,000 to 200,000	15 feet (4.6m)
Above 200,000 to 350,000	20 feet (6.1 m)
Above 350,000 to 500,000	25 feet (7.6 m)
Above 500,000 to 750,000	35 feet (10.7 m)
Above 750,000 to 1,000,000	45 feet (13.7 m)

**Table 2. Overhead Clearances When Driving the Unit** 

Voltage of Electric Line	Minimum Clearance
750 or less	4 feet (1.2 m)
Above 750 to 50,000	6 feet (1.8 m)
Above 50,000 to 345,000	10 feet (3 m)
Above 345,000 to 750,000	16 feet (4.9 m)
Above 750,000 to 1,000,000	20 feet (6.1 m)



## A LOADING REFUSE INTO THE UNIT

- YOU MUST BE ATTENTIVE at all times when you load refuse and be ready to stop or reverse the function in use if necessary.
- ALL PERSONS MUST STAND CLEAR when the tailgate is in motion and during the unloading cycle. MAKE SURE no one stands under or crosses under a raised tailgate.
- LOOK UP AND LIVE. Make sure there is enough clearance between a raised container and overhead power lines. Refer to Tables 1 and 2.



#### UNI OADING

- MAKE SURE the unloading area is clear of all personnel.
- ALL PERSONS MUST STAND CLEAR when the tailgate is in motion and during the unloading cycle. MAKE SURE no one stands under or crosses under a raised tailgate.



## WHEN WORKING IN OR AROUND THE VEHICLE

- MAKE SURE the unit is in Lock-Out/Tag-Out [53] condition BEFORE you work in or around the unit.
- DO NOT go under the chassis or enter the body area unless the unit is locked-out. To lock-out the unit, stop the engine, apply the brakes and make sure the brakes hold and work properly, chock all wheels, remove the keys from the cab, and place a lock-out tag on the steering wheel. See the Lock-Out/Tag-Out Procedure 53.



## **TOWING OF ANY EQUIPMENT**

Heil DOES NOT recommend that you tow any kind of equipment with the unit. The unit was NOT DESIGNED nor intended for towing.

#### **DECALS**

The following pages show the DANGER, WARNING and CAUTION decals and list the reflective safety materials that are on the vehicle. See the Parts and Service Manual for the location and part numbers of all decals on the unit.

#### NOTICE

Replace any decal with a new decal if the old decal is lost, destroyed, painted over or cannot be read. When you replace a part that had decals, make sure you install new decals on each new part. Decal part numbers can be found below and in the Parts Manual. You can purchase replacement decals from your **Heil Dealer** or from the **Heil Parts Central**, 800-528-5308.

#### REFLECTIVE SAFETY MATERIALS

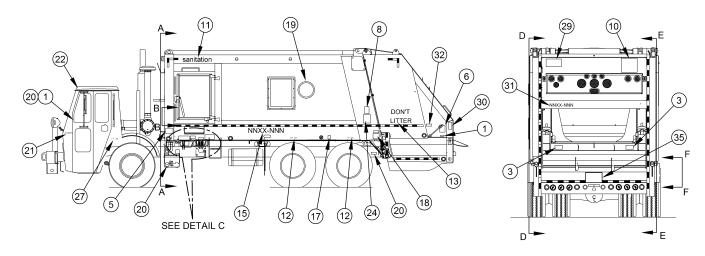
See the Parts and Service Manual for the location and part numbers of the reflective safety materials on the unit.

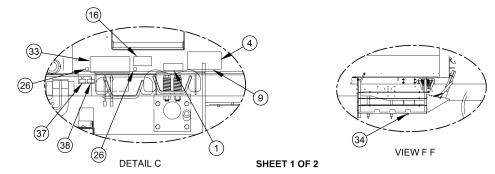
#### **NOTICE**

Replace any safety material with new safety material if the old safety material is lost, destroyed, painted over or cannot be seen. When you replace a part that had safety material on it, make sure you install new safety material on the new replacement part. See the Parts and Service Manual for all part numbers and location of the safety materials.

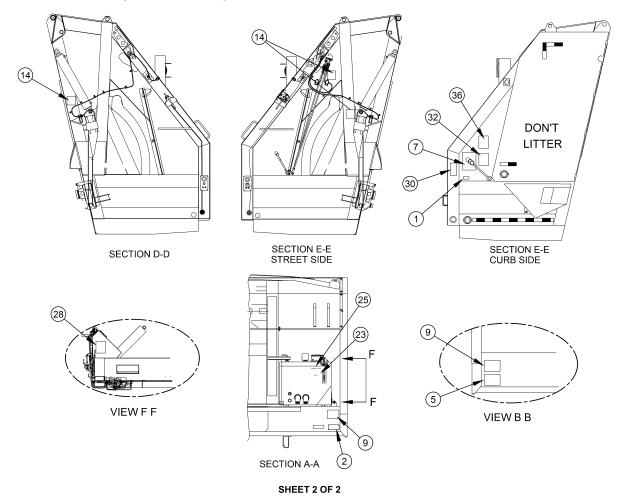
You can purchase replacement decals from your Heil Dealer or from the Heil Parts Central, 800-528-5308.

#### **DECAL PLACEMENT**





### **DECAL PLACEMENT (CONTINUED)**



## **DECAL PLACEMENT (CONTINUED)**

ITEM	PART NO.	DESCRIPTION	EFF	QTY
-	212-3237	KIT, Decal		REF
1	212-0735	DECAL, Warning, Operational Manual		
2	212-0984	DECAL, ANSI Compliance		1
3	212-1115	DECAL, Danger, Stand Clear of Packer		
4	212-1116	DECAL, Caution, Access Door		1
5	212-1205	DECAL, Caution, Stand Clear		2
6	212-1546	DECAL, Street Side Tailgate Controls		1
7	212-1570	DECAL, Curb Side Tailgate Controls		1
8	212-1576	DECAL, Stand Clear		2
9	212-1608	DECAL, Caution, Before Entering The Body		3
10	212-1719	DECAL, Caution, Wide Turn		
11	212-2195	STENCIL, Sanitation		2
12	212-2199	STENCIL, T.P.120		4
13	212-2200	DECAL, Don't Litter		
14	212-2228	DECAL, Proximity Switch, Adjustment		3
15	212-2264	STENCIL, Order Number		
16	212-3143	DECAL, Hydraulic Settings		1
17	212-2441	DECAL, Towing		2
18	212-2442	DECAL, Tailgate Lock		
19	212-2443	DECAL, City Logo		2
20	212-2448	DECAL, Do Not Weld		4
21	212-2449	STENCIL, Sanitation		2
22	212-2450	STENCIL, Cab		1
23	212-2460	STENCIL, Full		1
24	212-2618	DECAL, Danger, Tailgate Prop Operation		2
25	212-2668	STENCIL, Filter, 3 Micron		
26	212-2737	DECAL, Test Port		
27	212-2807	STENCIL, T.P. 130		
28	212-2567	STENCIL, Hydraulic Oil Only		1
29	212-3003	DECAL, Slow Down		

30	212-3011	DECAL, Warning, Do not Stand or Cross
31	212-3012	STENCIL, Unit Number 1

35

## **DECAL PLACEMENT (CONTINUED)**

ITEM	PART NO.	DESCRIPTION	EFF	QTY
32	212-3019	DECAL, Notice, Emergency Stop		2
33	212-3045	DECAL, Body Controls	=	1
34	212-3074	STENCIL, Air Drain		
35	212-3218	STENCIL, For Pulling Only		
36	212-1542	DECAL, Lubrication Guide		
37	212-3312	LABEL, Throttle		
38	212-3313	LABEL, Tailgate Clear		
-39	212-3316	DECAL, Warning, Body Ladder Operation		
-52	212-3551	DECAL, Preparing Unit to check Hydraulic Oil Level		

#### **DECAL IMAGES**

# **A** DANGER

Do not operate or service this machine until you have read and fully understand the operations manual supplied with this equipment. Manuals can be obtained from a Heil Dealer.

Figure 5. Danger: Operations Manual, PN 212-0735

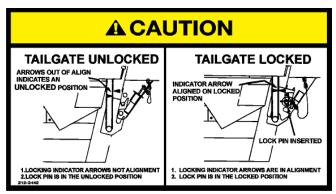


Figure 7. Caution: Tailgate Locked/Unlocked, PN 212-2442



Figure 6. Danger: Stand Clear, PN 212-1115



Figure 8. Danger: Stand Clear, PN 212-1205

#### **DECAL IMAGES**



Figure 9. Warning: DO NOT Stand or Cross Behind, PN 212-3011



Figure 11. Caution: Disconnect Battery Before Welding, PN 212-2448

#### **▲ WARNING**

KEEP ACCESS DOOR
CLOSED WHEN IN
OPERATION; STOP
ENGINE AND REMOVE
IGNITION KEY.
LOCKOUT/TAGOUT
REQUIRED
BEFORE ENTERING. 22.116

Figure 10. Access Door Closed, PN 212-1116



Figure 12. Proximity Switch, Adjustment, PN 212-2228

#### **DECAL IMAGES (CONTINUED)**



Figure 13. Danger: Stand Clear When T/G is in Motion, PN 212-1576

# **A WARNING**

STOP ENGINE AND REMOVE IGNITION KEY LOCKOUT/TAGOUT REQUIRED BEFORE ENTERING



Figure 14. Caution: Stop Engine and Remove Key, PN 212-1608

212-1608

# THROTTLE

212-3312

Figure 15. Throttle, PN 212-3312

## TAILGATE CLEAR

212-331

Figure 16. Tailgate Clear, PN 212-3313

#### **DECAL IMAGES (CONTINUED)**



Figure 17. Body Controls, PN 212-3045

PRESSURE SETTINGS	PSI
BODY VALVE MAIN RELIEF:	2900
PUMP RELIEFS:	2700
EJECTOR UNLOAD VALVE PILOTED BY PUMP PRESSURE PILOTED BY UPPER PANEL CYL.	2100 2350
BLADE BACK0FF	3900
BLADE (HYDRAULIC DETENT)	2400
UPPER PANEL (MECHANICAL DETENT)	
PORT RELIEF (EJECTOR CYL. ROD END)	2850
	212-3143

Figure 19. Pressure Settings, PN 212-3143

THIS UNIT CONFORMS TO ALL PRESENT AMERICAN NATIONAL STANDARDS INSTITUTE SAFETY REQUIREMENTS Z 245.1 IN EFFECT ON THE DATE OF MANUFACTURE.

212-0984

THE HEIL CO.

Figure 18. ANSI Compliance, PN 212-0984

#### **NOTICE**

AFTER ACTIVATING THE EMERGENCY STOP, THE CONTROL VALVE LEVERS MUST BE MOVED TO THE CENTER POSITION BEFORE RE-ENGAGING THE PUMP. 212-3019

Figure 20. Notice, Emergency Stop, PN 212-3019

**DECAL IMAGES (CONTINUED)** 

HYDRAULIC OIL ONLY 40.6 GAL. FILL SYSTEM PRESSURE 2700 P.S.I.

Figure 21. Hydraulic Oil Only, PN 212-2567

FOR PULLING ONLY NOT FOR TOWING NOT FOR LIFTING

Figure 23. For Pulling Only, PN 212-3218

T.P. 130

Figure 22. T.P. 130, PN 212-2807



Figure 24. Test Port, PN 212-2737

**DECAL IMAGES (CONTINUED)** 

# sanitation

Figure 25. Sanitation, PN 212-2195 and 212-2449

T.P. 120

Figure 26. T.P. 120, PN 212-2199

DON'T LITTER

Figure 27.Don't Litter, PN 212-2200

#### **DECAL IMAGES (CONTINUED)**



Figure 28. City Logo, PN 212-2443

# 25DN-401

Figure 29. 3 Micron Filter, PN 212-2450, 212-2668 and 212-3012

# **3 MICRON FILTER**

Figure 30. 3 Micron Filter, PN 212-2668

# **AIR DRAIN**

Figure 31. Air Drain, PN 212-3074

**DECAL IMAGES (CONTINUED)** 

# DON'T LITTER Figure 32, Don't Litter, PN 212-2200

FULL -

Figure 33. Full -, PN 212-2460



# **TOWING**

BEFORE TOWING DISABLED VEHICLE

REMOVE BOTH AXLE SHAFTS

212-2441

Figure 34. Before Towing Disabled Vehicle, Remove Both Axle Shafts, PN 212-2441

# **WARNING**

To operate Body Ladder:

- 1. REMOVE BOTTOM two PINS first.
- 2. SUPPORT UPPER LADDER while UNLATCHING LOCK HANDLES.
- 3. ROTATE LADDER to the DOWN position.

The Body Ladder must be stored in the UP, LATCHED (BOTH LOCK HANDLES) and PINNED (BOTH PINS) position BEFORE operating unit.

212-3316

Figure 35. Body Ladder Operation, PN 212-3316

#### **DECAL IMAGES (CONTINUED)**

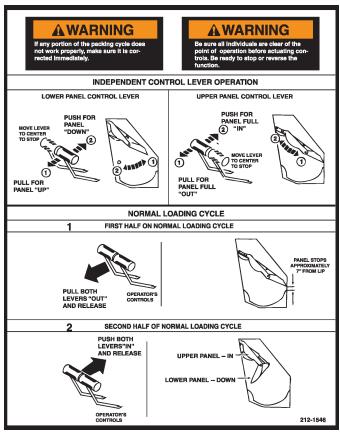


Figure 36. Warning: Street Side Tailgate Controls, PN 212-1546

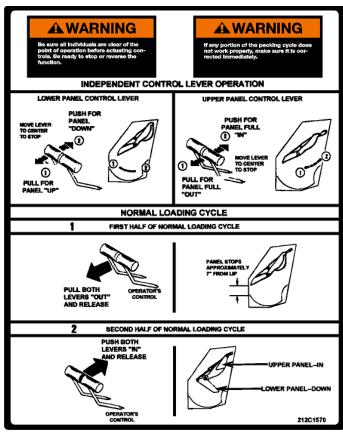


Figure 37. Warning: Curb Side Tailgate Controls, PN 212-1570

#### **DECAL IMAGES (CONTINUED)**

#### **TAILGATE PROP OPERATION** IMPORTANT: TAILGATE MUST BE FREE OF REFUSE AND ALL PERSONS CLEAR OF TAILGATE BEFORE PERFORMING THE **FOLLOWING STEPS. ⚠** CAUTION TWO PROPS ARE INSTALLED ON THE TAILGATE. BOTH MUST BE USED. **USE OF PROP** 1. Set unit on level surface and apply parking brake. 2. Raise tailgate enough so props can be rotated out from body crossmember. 3. Slowly lower tailgate until props mate with the tailgate stop. 4. Turn off engine and remove ignition key. TO STORE PROPS 1. Raise tailgate enough so props can be rotated into stored position against body crossmember. BODY CROSSMEMBER PROP ROTATED IN TO STORED POSITION. ROTATED OUT TO MATE (BOTH SIDES OF BODY) WITH TAILGATE STOP END VIEW (BOTH SIDES OF TAILGATE) 212-2618

Figure 38. Danger: Tailgate Prop Operation, PN 212-2618



Figure 39. Caution: Wide Turns, PN 212-1719

#### **DECAL IMAGES (CONTINUED)**

#### DuraPack 5000 Lubrication Guide Note: Clean fittings then pump grease into fittings. Always pump 8 enough grease to flush old grease from fittings. Remove excess grease from fittings. Note: Lubricate moveable, mechanical parts with non-detergent motor oil every 60 days. REF. NO. LOCATION QTY. INTERVAL Tailgate Hinge 2 Weekly/40 Hours 7 Outside Packing Cylinder (Both Ends) Weekly/40 Hours Tailgate Raise Cylinder (Both Ends) Weekly/40 Hours Lower Link Pivot (Both Ends) Weekly/40 Hours 4 4 2 Control Handles/Linkage: A. Upper Bellcranks 2 5 B. Kick-Out Lever 1 Weekly/40 Hours C. Lower Yoke Ass'v 3 2 2 **D. Control Handle Pivots** Packer Panel Pivot (Bottle Pin to 6 4 Weekly/40 Hours **Upper Panel)** 7 Inside Packing Cylinder (Both Ends) 4 Weekly/40 Hours Weekly/40 Hours 8 Upper Link Arms 4 PTO (Pump) Drive Shaft 4 Weekly/40 Hours 9 Front Mount Drive Shaft Weekly/40 Hours 10 Tailgate Turnbuckle Clamps 2 Weekly/40 Hours Container Mech. Control: 11 A. Handle Weekly/40 Hours B. Upper Pivot 1 Weekly/40 Hours Ejector Cylinder (Not Shown) Weekly/40 Hours 12 212-1542

Figure 40. Lubrication Guide, PN 212-1542

**DECAL IMAGES (CONTINUED)** 

HYDRAULIC OIL ONLY 40.6 GAL. FILL SYSTEM PRESSURE 2700 P.S.I.

Figure 41. Hydraulic Oil Only, PN 212-2567

ADVERTENCIA	<b>▲</b> CAUTION
ALEJESE DE LA PLACA COMPACTADORA MIENTRAS ESTE EN MOVIMIENTO.	Stand clear while panel is in motion.

43. Stand Clear, PN 212-1911



Figure 42. City Logo, PN 212-2443

# **ACAUTION**

Sump door MUST be closed before operating the arms to prevent damage to door.

44. Sump Door, PN 212-2067

#### **CARE OF DECALS**

It is important that the decals are properly cleaned to make sure that they are readable and do not come off the unit. Use the following steps to clean the decals.

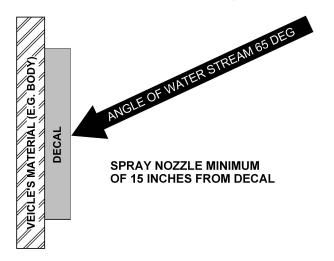
#### General Instructions

- Wash the decals with a blend of mild car wash detergent and clean water.
- · Rinse with clean water.
- Let the vehicle air-dry or dry with a micro-fiber cloth.
- Do not allow fuels to stay in contact with the decal for an extended period of time. Remove the fuel contamination as quickly as possible.
- Do not use carnauba-based wax over the decals.
- Do not use a mechanical brush while washing the decals.

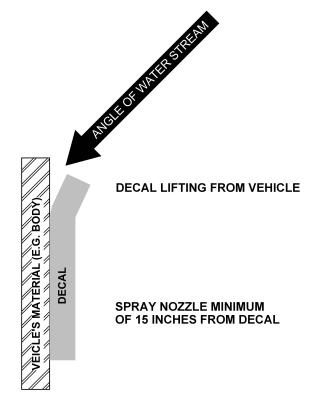
#### Pressure Washer Precautions

- Pressure washing can cause damage to decals. It can cause the edges of the decals to lift and peel the decal away from the unit. Over time, the decal can fade, crack or chip away.
- See the following figures for correct and incorrect methods of pressure washing.
- Use pressure washing only when other cleaning methods are not effective. If you use a pressure washer, use the following precautions.
  - Spray nozzle opening: 40° wide pattern
  - Spray angle: 65° from vehicle's body
  - Distance of nozzle to decal: 15" minimum
  - Water pressure: <= 800 psi</li>
  - Length of time: not more than 30 sec.
  - o Do not use sharp angles to clean the decals this can lift the decals from the unit.
  - o NEVER use a "turbo pressure nozzle".

#### PRESSURE WASHER TECHNIQUE



RECOMMENDED TECHNIQUE
Figure 45. Recommended Technique



INCORRECT TECHNIQUE
Figure 46. Incorrect Technique

#### ALTERNATIVE CLEANING PROCEDURE

When normal cleaning procedures do not remove difficult debris from the decals, try the following:

# **A** WARNING

Isopropyl alcohol is flammable and is harmful to eyes and skin. Keep isopropyl alcohol away from heat or open sources of ignition. Flush eyes and skin with water for 15 minutes after contact. Seek immediate medical help.

- Spot clean the decal with Isopropyl Alcohol and a micro-fiber cloth (rag).
- If these methods do not work on a problem area, call a Heil Dealer or Heil Customer Service.

NOTES:

# SECTION 3 LOCK-OUT/TAG-OUT PROCEDURE

#### **PREVIEW**

Read this section to learn about the proper Lockout/Tagout procedures.

You MUST Lockout/Tagout a unit BEFORE:

- You enter the body
- Do any maintenance or repair procedures.

#### LOCKOUT/TAGOUT PROCEDURE

## **A** DANGER

This procedure MUST be followed before entering the units body or performing any maintenance repair or cleaning procedures on the unit.

# **A** WARNING

If you do not have functioning Lockout/Tagout gear and/or are not an authorized employee, STOP and DO NOT initiate any service on the unit. Contact your supervisor immediately.

#### NOTICE

This Lockout/Tagout procedure represents Heil's minimum recommendation and should be used in conjunction with and should not supersede additional or more stringent safety requirements called out by your company's policy. Please check with your supervisor to determine if your company has a specific Lockout/Tagout procedure. Contact your supervisor, Heil Technical Service, or reference OSHA Regulation 1910.147 if you have any questions about Lockout/Tagout.

Watch the Service Shack Video online at www.Heil.com/ Heil-Service-Shack by selecting Lock-Out/Tag-Out.

- 1. Put the unit in a Lockout/Tagout mode:
  - BEFORE you enter the unit's body
  - BEFORE you perform ANY maintenance, repair or cleaning procedures on the unit.
- 2. All stored energy must be removed and/or protected against, common sources found on Heil units (Including, but not limited to):
  - Hydraulics
  - Electrical
  - Gravity
  - Pneumatics
  - Mechanical
- 3. Examples of some basic equipment required (see figure on next page):
  - Multi-hasp
  - Single-keyed red lock
  - Lockout tag

#### LOCKING OUT THE UNIT (CONTINUED)



Figure 47. Examples of Lockout/Tagout Gear.

#### Follow These Steps:

- 1. APPLY the brakes. MAKE SURE the brakes do not let the unit move and they work properly.
- 2. Chock all wheels.
- 3. SET the tailgate props when the tailgate is raised for any service, maintenance or cleaning.
- 4. SET the body props when the body is raised for any service, maintenance or cleaning.

- 5. BEFORE disconnecting main battery power, VERIFY all the following stored energy sources are depleted according to your company policy:
  - a. Hydraulic (Such as forks or grabber arm in stowed position)
  - b. Pneumatic (Such as tag axles).
  - c. Mechanical (Such as springs)
  - d. Gravity (Such as tailgate raised)
- 6. REMOVE the key from the ignition and store it in your pocket, or another secured location for your safety.
- 7. Disconnect the battery power by flipping the battery box disconnect switch to OFF.
  - a. VERIFY all electrical stored energy is depleted according to your company procedure.
- 8. INSERT the mufti-hasp into the disconnect switch.
- 9. ATTACH your red single-keyed Lockout/Tagout lock with your tag exposed and visible to the multi-hasp.
  - a. ALWAYS use individually assigned locks and tags when performing ANY service or maintenance with other authorized employees. Each employee MUST place their personally assigned tag and lock to the multi-hasp connected to the disconnect switch.

#### LOCKING OUT THE UNIT (CONTINUED)

- 10.REMOVE your lock key and put it in your pocket for your safety.
  - a. ONLY the person who placed the lock and tag on the multi-hasp is authorized to remove it.
  - b. NEVER remove another employee's Lockout/Tagout gear without approval from the authorized person responsible.
  - c. Shift or personnel changes: Off-going employees MUST provide all details pertaining to the unit's status to the oncoming employee(s). The oncoming employee(s) MUST perform the Lockout/ Tagout procedure to verify all stored energy is removed from the unit BEFORE applying their Lockout/Tagout gear.
- 11. BEFORE removing your Lockout/Tagout gear to return the unit to service, follow these steps:
  - a. INSPECT the work area to ensure all nonessential items have been removed.
  - VERIFY all unit components are operationally intact.
  - c. ENSURE all employees are safely positioned or removed from the area.
  - d. NOTIFY all affected employees that the Lockout/ Tagout devices are being removed.

NOTES:

# SECTION 4 FEATURES, CONTROLS, SWITCHES, AND INDICATOR LIGHTS

#### **PREVIEW**

Read this section to learn about the operation of the in-cab and outside controls, switches, buttons, and indicator lights.

#### NOTICE

The location and appearance of the controls may be different than those shown in this manual. Make sure you know the location of the controls and the how you operate the controls on your unit before you use the vehicle.

#### This section tells you:

- · Learn about the unit's features and operation specifications
- The in-cab cab controls, switches and buttons
- How the in-cab controls work
- The in-cab indicator lights available
- The outside controls and how they work

#### **CONTROLS**

The unit's standard controls are located on the In-Cab Control Panel and on the body. The standard controls in the cab enable the hydraulic pump, strobe light, work light, and camera light. The hydraulic controls are installed on the street side of the body (tailgate and ejector panel controls) and on the curb side of the body (upper panel and blade).

# AUTO NEUTRAL (FORCE TO NEUTRAL) MODE FEATURE

Auto Neutral puts the transmission in NEUTRAL automatically and returns it to DRIVE on demand by the operator.

To activate this feature, the operator sets the work brake.

When an operator needs to re-position the truck after refuse is loaded, the operator releases the work brake, and then selects the gear he needs.

#### IN-CAB CONTROL PANEL

The control panel is located on the dashboard of most NYC truck chassis. See the figure on the right side of this page. In this photo, you can see the control panel on a Mack chassis dashboard.

The control panel has labels or markings that identify each standard function and its operations. Make sure you are familiar with the control panel in your unit.

The labeling/marking scheme is straight-forward and identifies a function and its operations. For example, look at the figure below and find the PACKER ON switch and its ON operation. The marking identifies the function (PACKER) and its operation (ON). When you want to enable the pump, for example, you MOVE the PACKER ON switch to the ON position.

Similarly, the following instructions tell you to MOVE a switch to a position (as given by the panel's label/marking) for the operation shown on the panel's markings/label.



Figure 48. In-Cab Control Panel

#### IN-CAB CONTROL PANEL (CONTINUED)

Use the switches and indicator lights described in the following paragraphs to enable the standard hydraulic pump and throttle advance functions and to monitor standard indicator lights.

#### Standard Toggle Switches

The following paragraphs describe the standard toggle switches that are on your unit.

The control panel may be in different locations for different cabs and will have label/markings for the following functions.

- 1. PACKER This toggle switch enables and disables the hydraulic pump:
  - MOVE the switch to the ON position to enable the hydraulic pump. The switch light comes ON.
  - MOVE the switch to the OFF position to disable the hydraulic pump. The switch light goes OFF.
- 2. HOPPER LIGHT This toggle switch turns on the hopper light:
  - MOVE the switch to the ON position to turn the light ON. The switch light comes ON.
  - MOVE the switch to the OFF position to turn the light OFF. The switch light goes OFF.

#### Standard Indicator Lights

The following paragraphs describe the standard indicator lights that are on your unit.

The control panel may be in different locations for different cabs and will have label/markings for the following functions.

- TAILGATE OPEN This red light illuminates when the tailgate is NOT FULLY CLOSED. The light is OFF when the tailgate is fully CLOSED. When the tailgate is NOT FULLY CLOSED, an alarm sounds in the cab.
- 2. FILTER BYPASSED This red light illuminates when the filter monitor switch on the hydraulic oil tank senses the pressure in the oil flow coming back to the hydraulic oil tank. When the pressure is greater than a preset limit, current flows in the switch and turns the FILTER BYPASSED light ON. When the pressure in the oil flow is lower than the preset limit, the filter monitor switch is OFF, current does not flow to the FILTER BYPASSED indicator light and it is OFF.

#### STANDARD OUTSIDE CONTROLS

The standard outside controls for the unit are located on the front street side of the body and on both sides of the tailgate near the hopper.

The upper panel and packer blade levers have detents. Once you push or pull the lever past the detent (fully push or pull the lever), the selected operation continues and you can release the lever. The lever will self-center at the end of the commanded operation by way of internal hydraulic pressure. You can reverse the direction of a function at any time when you push or pull the lever past the detent in the opposite direction.

You must move the tailgate and ejector levers in the direction of travel you want and hold the lever at that position until the tailgate or ejector reaches the desired position then release the lever. You can stop an operation at any time by releasing the lever.

## **A** DANGER

Your body or clothing can become caught by the blade while it moves. Serious injury or death may occur if a person is in or near the hopper when the blade and upper panel move. Clear the area near the hopper of all unnecessary people before you move the blade and upper panel and keep all parts of your body away from the blade.

#### A. PACKER BLADE Lever

This lever is on the curb side of the tailgate next to the UPPER PANEL lever. It is the lever closest to the end of the tailgate. See the figures on the next two pages.

- PUSH the lever to the FULL DOWN position and RELEASE it to MOVE the blade UP.
- PULL the lever to the FULL UP position and RELEASE it to MOVE the blade DOWN.
- 3. MOVE the lever in the opposite direction to stop an UP or DOWN operation at any time.
- 4. You usually operate this lever at the same time you operate the UPPER PANEL lever to:
  - a. OPEN the hopper to load refuse
  - b. CLOSE the hopper for the in-transit position
  - MOVE and COMPACT the refuse in the hopper to the body.

#### B. UPPER PANEL Lever

This lever is on the curb side of the tailgate next to the BLADE lever. See the figures on the next two pages.

- PULL the lever to the UP position and RELEASE it to MOVE the upper panel IN.
- 2. PUSH the lever to the DOWN position and RELEASE it to MOVE the upper panel OUT.
- 3. MOVE the lever in the opposite direction to stop an IN or OUT operation at any time.
- 4. You usually operate this lever at the same time you operate the BLADE lever to:
  - a. OPEN the hopper to load refuse
  - b. CLOSE the hopper for the in-transit position
  - MOVE and COMPACT the refuse in the hopper to the body.

### STANDARD OUTSIDE CONTROLS (CONTINUED)

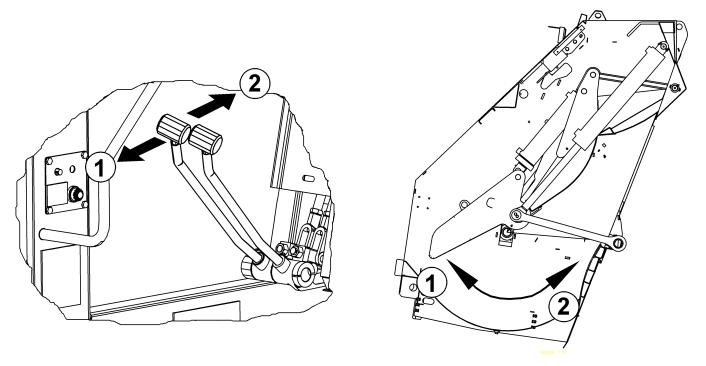


Figure 49. Blade Control Lever

### STANDARD OUTSIDE CONTROLS (CONTINUED)

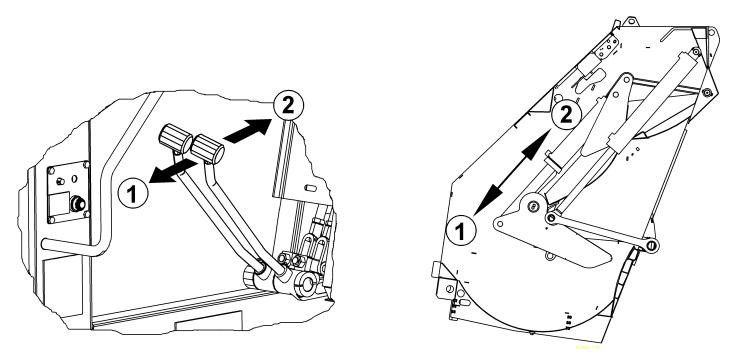


Figure 50. Upper Panel Control Lever

# STANDARD OUTSIDE CONTROLS (CONTINUED)

## **A** DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

#### C TAIL GATE Lever

This lever is on the front, street side of the body and controls the raising and lowering of the tailgate. You must hold UP the red tailgate lock release lever above the tailgate lever to raise or lower the tailgate. See the figure on the next page.

- 1. HOLD the red tailgate lock release lever UP to use the tailgate lever.
- 2. PULL the tailgate lever to the UP position and HOLD it there to raise the tailgate.
- 3. PUSH the tailgate lever to the DOWN position and HOLD it there to lower the tailgate.
- RELEASE the tailgate lever to stop an UP or DOWN operation at any time or when the tailgate is fully raised or lowered.
- 5. RELEASE the red safety switch.
- 6. The TAILGATE red indicator light is ON when the tailgate is NOT FULLY CLOSED and goes OFF when it is fully CLOSED.

# **A** DANGER

Stand clear when the ejector panel is in motion. Keep side access door closed when ejector panel is in motion. Failure to obey may result in severe injury or death.

#### NOTICE

Do not use the ejector panel to pack refuse against a closed tailgate (backpack). Packing refuse against a closed tailgate may result in damage to body or ejector cylinder.

#### D.EJECTOR Lever

This lever is on the front, street side of the body and is next to the TAILGATE lever. This lever controls the EXTEND and RETRACT functions of the ejector panel. You EXTEND the ejector panel when you want to push refuse out of the body and you RETRACT the ejector panel after body is empty of refuse. You also set the position of the ejector panel at the start of a route before you load any refuse. See the figure on the next page.

- PULL the lever to the UP position and HOLD it there to EXTEND the ejector panel and push refuse out of the body.
- 2. PUSH the lever to the DOWN position and HOLD it there to RETRACT the ejector panel after it pushes the refuse from the body.
- 3. RELEASE the lever to stop an EXTEND or a RETRACT operation at any time or when the ejector panel is fully EXTENDED or RETRACTED.

## STANDARD OUTSIDE CONTROLS (CONTINUED)

### E. THROTTLE ADVANCE Switch

Use this switch to increase engine RPMs and the flow of hydraulic fluid when you use the ejector panel to push refuse out of the body. You must enable this switch by MOVING the in-cab THROTTLE ADVANCE enable switch to ON. See the figure below.

### F. TAILGATE CLEAR Switch

Use this switch with the tailgate raised to clear refuse from the tailgate. See the figure below.

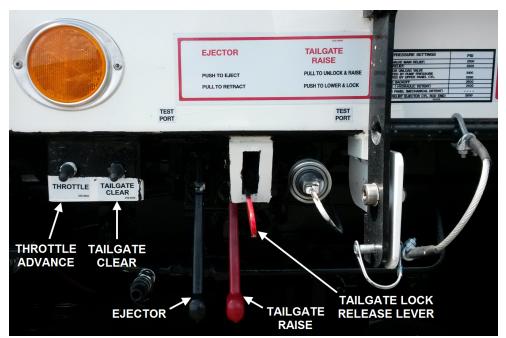


Figure 51. Front Street Side Controls

# STANDARD OUTSIDE CONTROLS (CONTINUED)

For the following standard outside controls, refer to the figure on the right. These controls are located on both sides of the tailgate.

### G.EMERGENCY STOP (E-STOP) Button

Use this detented mushroom button to stop the functions of the tailgate.

- 1. PUSH the button to stop the functions of the tailgate.
- 2. PULL the button back out to reset the button.

### H. BUZZER Switch

This switch is located on both sides of the tailgate. A helper uses this switch to notify the operator that the helper is ready for the unit to move to the next pickup location.

- PUSH the switch IN to activate the buzzer in the cab when the helper is ready for the unit to move to the next pickup location.
- 2. RELEASE the switch to stop the buzzer in the cab.
- 3. MAKE SURE you (the helper) are ready for the unit to move.

### I. HOPPER LIGHT Switch

Use this switch to turn on the Hopper Light.

### J. WORK LIGHT Switch

Use this switch to turn on the Hopper Light.



Figure 52. Hopper Light Switch Location

# STANDARD OUTSIDE CONTROLS (CONTINUED)

### K. CART TIPPER Controls

For the following standard outside controls, refer to the figure on the next page. These controls are located on both sides of the tailgate and are used to raise and lower the cart tippers.

# **A** DANGER

Container lifting equipment in motion is dangerous. Serious injury or death may occur if a person is struck by a refuse container or the lifting equipment. Clear the area near the tailgate of all unnecessary people before you use the container lifting equipment.

# **A** WARNING

A refuse container that is not in good condition with retaining washers in place may not be secured with the latch bar and can suddenly move. Death or serious injury can occur when a person is struck by a moving container that is not properly secured. Make sure the refuse container is properly secured to the latch bar before you raise or lower the container.

# **A** WARNING

To prevent serious injury, death or equipment damage:

- Operator and bystanders should stand clear when lift is operating.
- Read and follow all safety precautions in the manual.

### **NOTICE**

- Maximum Load Weight: 400 LBS
- Compatible containers: ANSI Z245.60-2008 Type B Containers (Domestic 2-Bar Carts)
- This lifter complies with the requirements of ANSI Z245.30-2008

# STANDARD OUTSIDE CONTROLS (CONTINUED)

### **NOTICE**

Cart lifters can hang very low to the ground at certain points in their lift cycle. It is the operator's responsibility to move the lifter to a safe position before driving, such as raising it fully or placing it in the storage position. Lifters left hanging low risk bottoming out on the street, road, or alley. This can cause serious damage. Damage from bottoming out is not covered by the warranty.

### K. CART TIPPER Controls (Continued)

The push button controls for each cart tipper will be located on both the curb and street sides of the tailgate. The buttons with the red plate will control the near side tipper (tipper closer to the operator). The buttons with the white plate will control the far side tipper (tipper further from the operator). See the image to the right and on the next page.

- Bring the refuse container to the cart tipper and secure the container to the cart tipper with the cart tipper lock.
- Make sure the container latch bar is over the cart tipper saddle BEFORE you RAISE the container. PRESS and HOLD the UP button to RAISE the cart tipper. The cart tipper will RAISE and (by continuing to HOLD the button) tip the container, thereby dumping the refuse in the hopper.

- 3. Make sure the cart tipper slider latch EXTENDS and LOCKS the container when you RAISE the container. If the latch does not extend, PRESS and HOLD the DOWN button to LOWER the container, make sure the container latch bar is over the cart tipper saddle and RAISE the container again. DO NOT continue to RAISE a refuse container when the slider latch does not extend and lock the container.
- When the refuse container is empty, PRESS and HOLD the DOWN button to LOWER the cart tipper. At the end of the LOWER cycle, the cart tipper will stop lowering.

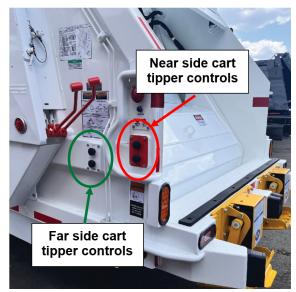


Figure 53. Curb Side Cart Tipper Controls

## STANDARD OUTSIDE CONTROLS (CONTINUED)

K. CART TIPPER Controls (Continued)

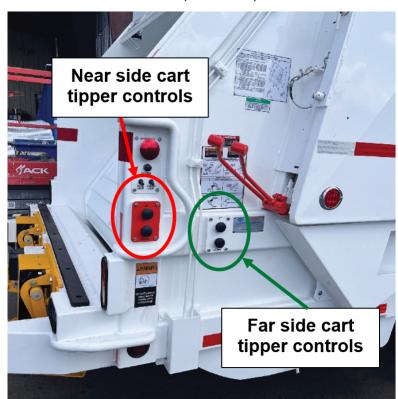


Figure 54. Street Side Cart Tipper Controls

### **AUXILIARY QUICK DISCONNECT HOOK-UP**

### NOTICE

IMPORTANT! Never connect a disabled unit to another unit as the system is designed for auxiliary pump usage only.

In the event a unit has hydraulic system trouble and is unable to use the hydraulic system, either body can be emptied of refuse by hooking up an auxiliary pump system to the quick disconnect on the unit. Each body has a quick disconnect.

Suction line disconnect is located at the back of the oil tank.

Contact Heil Technical Service at 866-310-4345 for more information.

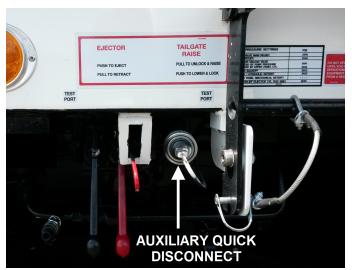


Figure 55. Auxiliary Quick Disconnect

# SECTION 5 BODY AND TAILGATE PROPS

### **PREVIEW**

Read this section to learn about:

- Using the body props
- Using the tailgate props

### PROPPING THE BODY

There are no body props as you cannot raise the body of the unit since the unit is an eject model and not a dump model.

### PROPPING THE TAILGATE

**YOU MUST** prop the tailgate when you open it for service or maintenance. Use the instructions that follow and prop the tailgate with the factory-installed tailgate props.

Observe and obey the following DANGER and WARNING notices while you prop the tailgate with the factory tailgate props.

# A DANGER

A tailgate is dangerous while you raise or lower it. A prop may fail and cause the tailgate to close suddenly which can result in serious injury or death if you become trapped between the tailgate and the body. Do not walk under or go between the body and the tailgate when the tailgate is in motion, while you prop the tailgate or while the tailgate is propped.

## Factory Tailgate Props

**YOU MUST USE BOTH** of the two support props at the rear of each unit whenever you open the tailgate for service or maintenance.

**MAKE SURE** the unit is on flat, stable ground and apply the parking brake and chock the wheels.ALWAYS remove the red lock pins (attached to chains) on BOTH sides before raising tailgate. Then follow the instructions on the Tailgate Prop Operation Decal on the unit (also shown on the next page).



IMPORTANT: TAILGATE MUST BE FREE OF REFUSE AND ALL PERSONS CLEAR OF TAILGATE BEFORE PERFORMING THE FOLLOWING STEPS.

# **ACAUTION**

TWO PROPS ARE INSTALLED ON THE UNIT, BOTH MUST BE USED!

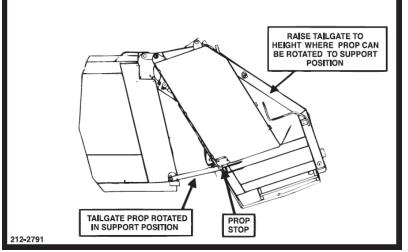
### TO USE PROPS

- Set unit on level surface and apply parking brake.
- Loosen turnbuckle clamps. (Units with automatic tailgate locks do not use these clamps.
- Remove pins holding prop in stored bracket.
- 5. Raise tailgate to height where props can be rotated to support position.

- 6. Rotate props.
- Lower tailgate until props mate with tailgate stop.
- 8. Turn engine off and remove ignition key.

### TO STORE PROPS

- Raise tailgate slightly and rotate prop to stored position and install pin.
- 2. Lower tailgate completely and tighten turnbuckle clamps.



# SECTION 6 DAILY CHECKLIST

### **DAILY CHECKLIST**

Make sure you perform a daily check of the unit. Many checks in the Daily Checklist are maintenance related, such as checking tire pressures and hoses for wear and damage.

Refer to the Daily Checklist Maintenance Items Chart below for items to check and the required action.

DAILY CHECKLIST MAINTENANCE ITEMS	
Item	Required Action
Low air pressure in tires	Inflate the tire to the correct air pressure given on the tire
Worn tire	Replace when the wear is greater than allowed by law or before the tread is no longer visible
Damaged tire	Replace immediately BEFORE going on route.
Hydraulic pump leaks	Determine the cause of the leak and repair immediately.
Damaged hydraulic pump	Repair or replace IMMEDIATELY
Loose or missing hardware for the hydraulic pump	Tighten loose hardware Replace missing hardware immediately
Damaged decal or decal not readable	Replace decal immediately
Low level of hydraulic oil	Fill the hydraulic oil tank immediately
Worn or damaged hoses	Replace immediately
Leaks at cylinders, hoses or fittings.	Tighten loose connection
Loose or missing hardware	Tighten loose connections Replace missing hardware
Worn fiber guards	Replace hoses/fittings as necessary Install new fiber guard on new hoses
Worn or damaged tailgate lock components	Replace worn or damaged components
Loose or missing tailgate lock hardware	Tighten loose hardware Replace missing hardware

DAILY CHECKLIST MAINTENANCE ITEMS	
Item	Required Action
Damaged tailgate seal	Replace seal
Body structure has loose or missing hardware	Tighten loose hardware Replace missing hardware
Body structure has cracked weld joints	Repair immediately
Body mounting brackets have loose hardware, damaged hardware or cracked welds	Tighten loose hardware Replace missing hardware Repair cracked welds
Air regulator (typically located at front of body)	90 PSI

**NOTES:** 

# SECTION 7 BEFORE GOING ON ROUTE

### **PREVIEW**

Read this section to learn proper procedures for:

- · Checking the unit each day
- Starting the unit in cold weather
- Setting the unit up for the route
- Removing power to the unit during periods of not using the unit

### **DAILY CHECKLIST**

See the **Daily Check section** for the daily checks and procedures checklist. Make a copy of the check list.

# **A** WARNING

A unit that needs service or repair can malfunction and create a dangerous condition. A part failure during operation can cause serious injury or death to a person or damage to the unit. Repair or replace any failed or defective part immediately.

### **NOTES:**

### **BEFORE STARTING A ROUTE**

Before you start a route, do the following:

- □ Perform an inspection of the unit with the **Daily** Checklist 77.
- ☐ Check the **Hydraulic Oil Level**.
- ☐ Cycle all **Hydraulic Functions**.
- ☐ If equipped, close the **Side Access Door**.
- ☐ Check the "In-transit" Settings 881.

### Use the Daily Checklist to Inspect the Unit

It is the operator's responsibility to do a visual inspection of the unit and make sure the unit is in good operating condition before you start a route.

The requirements for the daily checks are given in the **Daily Checklist section** 77. Make sure you complete the inspections on the checklist and you make all entries, including your signature.

### **COLD WEATHER WARMUP PROCEDURE**

When ambient air temperature is cold (below 0 degrees F), it is necessary to warm up the unit's hydraulic oil before you start your daily route operation or to check the oil level. The hydraulic oil is sufficiently warmed when the temperature is between 120° and 160°F.

# **A** WARNING

Moving parts on the unit are dangerous. Serious injury or death can occur if a person is struck by the equipment. Clear all people from the area before you operate the unit

Follow the steps below to warm up the hydraulic oil.

- 1. START the TRUCK and let the engine idle.
- APPLY the PARKING BRAKE and make sure it holds.
- 3. ENGAGE the HYDRAULIC PUMP for approximately five minutes.
- 4. MAKE SURE the AREA IS CLEAR of all unnecessary people BEFORE you operate the controls.
- 5. OPERATE the PACKER EXTEND and PACKER RETRACT functions through ten (10) cycles while the engine idles.
- 6. Make sure the oil temperature on the site gauge is between 120° and 160°F. If not, repeat step 5.
- 7. Check for fluid leaks. Repair if necessary.

# PREPARING THE UNIT TO CHECK THE HYDRAULIC OIL LEVEL

Before checking the oil level or adding oil, make sure the oil is warmed up and the unit is in the following position with all cylinders collapsed:

- Truck on level ground
- Tailgate and Body fully down and locked
- Ejector Panel at the front of the body
- Packer Panel in the in-transit position with all cylinders retracted

### CHECK HYDRAULIC OIL LEVEL

Check the hydraulic oil level (after warming up the oil) daily or every eight (8) hours, whichever comes first. Fill as necessary.

### Cycle All Hydraulic Functions

### **☑** Follow These Steps:

- Operate the packing panel, and body and tailgate functions two or three times each. See **Section 4** for proper operation of controls.
- 2. Put the unit back in the position described above and check the oil level again.

3. Add oil if necessary. Refer to the Service Manual for instructions for filling the oil tank.

Current Heil standard hydraulic oil is **Shell Tellus S2 VX 32**. Please see product TDS and MSDS for more detail information about it. We strongly recommend to use it on Heil products to get best system performance and oil service life. Refer to the Service Manual for other approved hydraulic oils.

### **NOTICE**

Cold weather operation requires special oil considerations. Viscosity should not exceed 7500 SSU at lowest startup temperature. Continuous operation should range between 40–1000 SSU for all temperature ranges.

### **NOTICE**

Contamination is a hydraulic system's worst enemy. DO NOT let dirt enter the system. Use a clean rag and remove dirt or other contamination around any system component before you disconnect or remove it. While you fill the reservoir, filter the oil through a 200 mesh (or finer) screen. NEVER use a cloth to filter the oil.

### HYDRAULIC OIL TANK WITH SIGHT GAUGE



Figure 56. Hydraulic Oil Tank with Sight Gauge

### CYCLE ALL HYDRAULIC FUNCTIONS

Check the operation of all hydraulic controls on the unit. See **Section 4** [59] for proper operation of controls.

# **A** WARNING

Moving equipment can be dangerous to bystanders. Serious injury or death can occur if a person is in the wrong area or is not attentive to the operations. Clear the area of all unnecessary people before you operate the controls.

### **☑** Perform These Steps:

# **A** DANGER

Your body or clothing can become caught by the packer blade while it moves. Serious injury or death may occur if a person is in or near the hopper when the packer blade and upper panel move. Clear the area near the hopper of all unnecessary people before you move the packer blade and upper panel and keep all parts of your body away from the packer blade.

### 1. Upper Panel/Sweep Panel

Use the controls and MOVE the Upper Panel/Blade through at least one cycle of the start, sweep and pack positions.

# **A** DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

### 2. Tailgate Raise Cycle

If the body is empty, do a tailgate RAISE and LOWER cycle. DO NOT raise the tailgate with refuse in the body or in the hopper.

# **A** DANGER

Stand clear when the ejector panel is in motion. Keep side access door closed when ejector panel is in motion. Failure to obey may result in severe injury or death.

### **NOTICE**

Do not use the ejector panel to pack refuse against a closed tailgate (backpack). Packing refuse against a closed tailgate may result in damage to body or ejector cylinder.

### 3. Ejector Panel

Do not operate the ejector panel if the body has refuse. When the body does not have refuse, UNLOCK and RAISE the tailgate, then do at least one EJECTOR PANEL cycle, which includes a full EXTEND cycle and a full RETRACT cycle.

# CHECK THE TRAVELING OR "IN-TRANSIT" POSITION

### **NOTICE**

BEFORE you drive any distance greater than one (1) mile or BEFORE you park a unit, you must make sure that the upper panel (slide) and sweep blade control levers are in the NEUTRAL position. If the control levers are not in the NEUTRAL position, heat may build up in the body hydraulics that could potentially cause damage to the unit.

When you travel to and from the landfill or transfer station, make sure the unit is in the in-transit mode as follows (see the figure to the right):

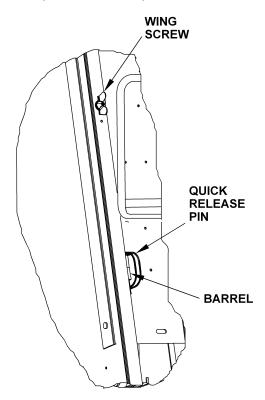
- The tailgate is fully LOWERED and CLOSED. Check the TAILGATE OPEN light in the cab. It must be OFF.
- The tailgate is locked.
- The left and right hand access doors are both closed and secured. For each door:
  - The quick release pin is secured in the barrel.
  - The wing screw is securely tightened against the door.

- For a unit with refuse, the blade is up tight against refuse. For a unit with no refuse, the blade is at the START POSITION.
- The ejector panel is at the front of the body.
- If equipped, the PTO is DISENGAGED.
- The PUMP ON switch is OFF.
- You properly ADJUST and CLEAN the mirrors.
- · All outside lights turn ON and OFF.
- If equipped, the side access door is CLOSED and LOCKED.



Figure 57. In-Transit Position

# CHECK THE TRAVELING OR "IN-TRANSIT" POSITION (CONTINUED)



### **DOOR DETAILS**

Figure 58. In-Transit Position (Door Details)

### **NOTES:**

**NOTES:** 

# SECTION 8 ON-ROUTE OPERATION PROCEDURES

### **PREVIEW**

Read this section to learn about:

- Setting up the unit for a route
- · Loading refuse
- · Packing the load
- Packing on-the-move
- Washout system
- Setting up the unit for the landfill or transfer station

### **DRIVING TO PICK-UP LOCATIONS**

### NOTICE

BEFORE you drive any distance greater than one (1) mile or BEFORE you park a unit, you must make sure that the upper panel (slide) and sweep blade control levers are in the NEUTRAL position. If the control levers are not in the NEUTRAL position, heat may build up in the body hydraulics that could potentially cause damage to the unit.

Whenever you drive the unit to and from a route or to the landfill, make sure the refuse body is set up as follows:

- The tailgate is fully LOWERED and CLOSED. Check the TAILGATE OPEN light in the cab. It must be OFF.
- The tailgate is locked.

- The left and right hand service access doors are both closed and secured. For each door:
  - o The quick release pin is secured in the barrel.
  - The wing screw is securely tightened against the door
- For a unit with refuse, the blade is up tight against refuse. For a unit with no refuse, the blade is at the START POSITION.
- The ejector panel is at the front of the body.
- If equipped, the PTO is DISENGAGED.
- The PUMP ON switch is OFF.
- You properly ADJUST and CLEAN the mirrors.
- All outside work lights turn OFF.
- If equipped, the body side access door is CLOSED and LATCHED.

## Use of Curb Side Drive

If equipped, drive from the curb-side driver position **ONLY** on the collection route. **DO NOT** use this station during travel to or from a route, landfill or transfer station.

### **BEFORE LOADING**

Before you start to load refuse, make sure the packing mechanism is in the correct position.

 If equipped, the PTO is engaged. The System Enable button is ON.

### NOTICE

The ejector panel should never be used to "backpack" (operating the ejector extend function with the tailgate closed against trash in a fully or partially loaded unit). This can possibly result in damage to the unit including structural components and cylinder failure. The resulting damage will NOT be covered by warranty.

# **A** DANGER

Stand clear when the ejector panel is in motion. Keep side access door closed when ejector panel is in motion. Failure to obey may result in severe injury or death.

- 2. The ejector panel should be:
  - a. For normal route pickup, about three (3) feet from the tailgate.
  - b. If starting with bulk refuse, the ejector panel should be about six (6) feet from the tailgate.
- The packing mechanism should be in the START POSITION with the upper panel fully IN and the blade fully DOWN. See the figure to the right.

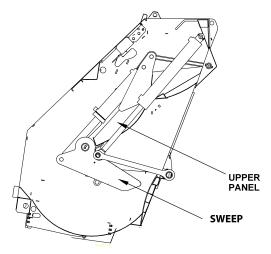


Figure 59. Packer Blade Starting Position

### LOADING REFUSE MANUALLY

Use the following procedures at each stop along the route to manually load refuse into the unit with the lift arm. Observe the DANGER and WARNING notices.

# A DANGER

Your body or clothing can become caught by the sweep while it moves. Serious injury or death may occur if a person is in or near the hopper when the sweep and upper panel move. Clear the area near the hopper of all unnecessary people before you move the sweep and upper panel and keep all parts of your body away from the sweep.

- 1. Move the upper panel and sweep into the START position. See the figure to the left.
  - a. PUSH the upper panel and sweep levers at the same time and RELEASE the levers. The levers will self-center at the end of the commanded position by way of valve internal hydraulic pressure.
  - The upper panel will move IN and the sweep will move DOWN.
  - c. The hopper is now ready to receive refuse.
- 2. Load the refuse from a container into the hopper and then move the container to the pick-up location.

### Packing Refuse into the Body

# A DANGER

The upper panel in/out and sweep up/down operations can push refuse out of the hopper or break objects. Refuse broken by the sweep can cause severe injury or death. Stand clear of the packer panel and to the side of the hopper when operating packing mechanism.

- 3. The In-Cab Packer Switch should be ON.
- 4. Make sure the tailgate is LOCKED.
- 5. Sweep the refuse from the hopper and pack it into the body.
  - a. PULL the upper panel and sweep levers at the same time and RELEASE the levers. The levers will self-center at the end of the commanded position by way of valve internal hydraulic pressure. See the figure below.

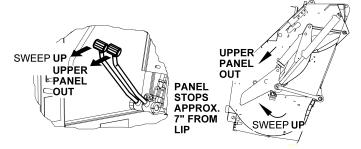


Figure 60. Loading Refuse

## LOADING REFUSE MANUALLY (CONTINUED)

- b. The upper panel will move OUT and the blade will move UP. STOP the blade UP operation when the blade is at the pinch point with the hopper sill.
- c. Watch for refuse that is pushed out of the hopper.
- d. PUSH the upper panel and blade levers at the same time and RELEASE the levers. The levers will self-center at the end of the commanded position by way of valve internal hydraulic pressure. See the figure below.
- e. The upper panel and blade move and compact the refuse into the body.

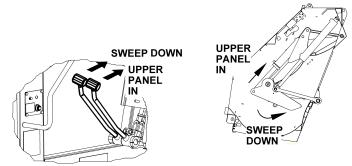


Figure 61. Packing the Refuse

- Repeat Steps 1 and 5 as necessary to compact the refuse.
- 7. Leave the blade against the refuse.
- 8. Move the refuse container to its pick-up location.

# A DANGER

Do not use riding step when vehicle speed is more than 10 MPH or to travel more than 2 tenths (0.2) of a mile. Do not use riding step when vehicle operates in reverse. Always face vehicle when using riding step.

# A DANGER

Do not ride on or in the hopper opening. Use riding step and obey all safety messages.

# **A** WARNING

Moving equipment can be dangerous. Serious injury or death may occur if a person is in the wrong area or is not attentive to the operations. Clear the area of all unnecessary people before you operate the controls.

# **A** WARNING

Before proceeding to the next stop, be sure all helpers are out of the path of the unit.

- 9. Each helper must PRESS the buzzer on their side of the tailgate and let the driver know each helper is ready to move to the next location.
- 10. Go to the next stop on the route.

### PACKING ON-THE-MOVE

Heil NYC DuraPack 5000 units can pack on-the move. The operator does this manually between stops. Some units will not do this because of transmission options or customerspecified configurations. Contact Customer Support at 866-275-4345 for more information about these units.

### **ACHIEVING PAYLOADS**

Read this section for advice and tips on how to pack the most efficient loads with your unit.

Payloads in any refuse/waste handling vehicle will vary greatly, depending on the type of material loaded. Dry bulk cardboard and reconstruction/building materials, Styrofoam, foam packing materials, loose plastic, etc. cannot be compressed and packed as effectively as wet, soft, garbage type materials. If dry materials can be mixed with some wet material, more effective payloads can be achieved.

Follow these techniques to attain greater efficiency in packing the load in your unit:

- 1. After you empty the first few bins, the body begins to fill and material can begin to "fall back" into the hopper
- 2. If the route allows, mix some wet bins in with dry bins. This helps compact the dry material more. Wet material also helps lubricate the body, which results in better packing.

### LEAVING THE ROUTE FOR THE LANDFILL/ TRANSFER STATION

At the end of the route, or when the unit has a full load, prepare the unit to go to the landfill. See **Driving to Pick-up Locations** 3 and make sure the unit is properly set up for travel.

- The tailgate is fully LOWERED and CLOSED. Check the TAILGATE OPEN light in the cab. It must be OFF.
- The tailgate is locked.
- The left and right hand access doors are both closed and secured. For each door:
  - o The quick release pin is secured in the barrel.
  - The wing screw is securely tightened against the door.

- For a unit with refuse, the blade is up tight against refuse. For a unit with no refuse, the blade is at the START POSITION.
- The ejector panel is at the front of the body.
- If equipped, the PTO is DISENGAGED.
- The PUMP ON switch is OFF.
- You properly ADJUST and CLEAN the mirrors.
- All outside lights turn ON and OFF.
- If equipped, the side access door is CLOSED and LOCKED.

# SECTION 9 LANDFILL/TRANSFER STATION/ RECYCLE CENTER PROCEDURES

### **PREVIEW**

Read this section to learn about:

- Setup conditions to dump the refuse
- Unloading the refuse
- Using the sump and (optional) washout system
- Preparing the unit to return to route.

# OVERVIEW OF LANDFILL/TRANSFER STATION/RECYCLE CENTER PROCEDURES

Use the following information as an overview of the steps to follow when you unload a load of refuse at the landfill.

For each step in this overview, read and follow the detailed instructions that follow the overview:

- 1. Set the unit in position for unloading.
- 2. Unlock and fully RAISE the tailgate.
- 3. Fully EXTEND the EJECTOR panel to unload refuse.
- 4. Fully RETRACT the EJECTOR panel.
- 5. Fully LOWER and secure the tailgate.
- 6. Prepare the unit to return to the route.

### **NOTICE**

The location of the controls on your unit may be different than those shown in this manual. Make sure you know your unit's control pattern before you operate the the unit.

### A. Setting Up the Unit for Unloading

After you position the unit on firm ground for dumping at the landfill, set it up properly before dumping the refuse.

### **☑** Follow These Steps:

 Some suspensions allow more movement in the chassis than others. Always stop the unit on the most stable, hard, dry and level surface you can find before you empty the refuse.

- Shift the transmission to NEUTRAL.
- 3. SET the parking brake.
- For a manual transmission, engage the PTO and MOVE the PUMP ON switch to ON. For automatic transmissions, just MOVE the PUMP ON switch to ON.
- MOVE the in-cab THROTTLE ADVANCE switch to ON.
- 6. If there is refuse in the hopper, cycle the blade until the hopper is clear of refuse.

### B. Unlocking and Raising the Tailgate

ALWAYS remove the red lock pins (attached to chains) on BOTH sides before raising tailgate.

# **A** DANGER

A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

- 1. On BOTH sides of tailgate, remove lock pin (attached to a chain) and store in angled keeper.
- HOLD the red tailgate lock release lever UP to use the tailgate lever, then PULL the TAILGATE lever UP and HOLD.

### B. Unlock and Raise the Tailgate (Continued)

- 3. PRESS and HOLD the THROTTLE ADVANCE switch (at the front of the body) while you HOLD the TAILGATE lever UP.
- 4. HOLD the lever until the tailgate is COMPLETELY raised.
- RELEASE the TAILGATE LEVER and the THROTTLE ADVANCE switch.

### NOTICE

The TAILGATE UP light turns ON and the in-cab alarm will sound to indicate the tailgate is open.



Figure 62. Tailgate Controls

# **A** CAUTION

Do not drive the unit for an extended distance. The unit may become unstable and you may cause damage to the tailgate cylinders.

### C. Unload Refuse

- 1. Extend the Ejector Panel
  - a. PULL the EJECT lever UP and HOLD.
  - b. PRESS and HOLD the throttle advance switch while you HOLD the EJECT lever UP.
  - HOLD the EJECT lever and PRESS the THROTTLE ADVANCE switch until the ejector panel fully EXTENDS and comes to a complete stop.
  - d. The refuse is now unloaded from the unit.
  - e. RELEASE the EJECT lever and the THROTTLE ADVANCE switch.
- 2. Retract the Ejector Panel
  - a. PUSH the EJECT lever DOWN and HOLD until the ejector panel is fully RETRACTED and at the front of the body.
  - b. RELEASE the eject lever.

#### D.Clean and Inspect the Tailgate

# A DANGER

Always prop the tailgate when you leave it raised for maintenance, service or cleaning procedures. Any part of your body between the unit's body and the tailgate while you prop the tailgate or when the tailgate is propped is dangerous. Serious injury or death may occur if any part of your body is between the tailgate and the body if the tailgate suddenly closes.

- BEFORE you lower the tailgate, MAKE SURE the area where the tailgate seal mates with the body is CLEAN AND FREE of any refuse and debris.
- DO NOT drive the unit for an extended distance if you must move the vehicle to another area to clean and inspect the tailgate seal.
- **DO NOT** go under the tailgate to clear refuse, instead, use a broom or pole to clean the tailgate seal.
- Inspect the seal for possible wear or damage and replace if necessary.

#### E. Lower and Lock the Tailgate

Refer to the figure on the previous page and follow the steps below.

# A DANGER

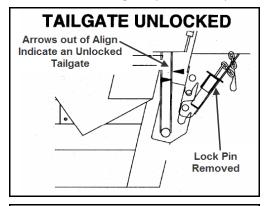
A tailgate in motion is dangerous. Serious injury or death may occur if a person is struck by a moving tailgate or becomes trapped between the tailgate and the body. Clear the area near the tailgate of all unnecessary people before you lower the tailgate.

- 1. PUSH and HOLD the TAILGATE lever to LOWER the tailgate.
- Continue to PUSH and HOLD the TAILGATE lever until the tailgate lock indicator arrows are aligned and the indicator light and alarm (in cab) are off. See the figure on the next page.
- 3. REMOVE the locking pin from the keeper and INSTALL the pin into the anchor hole.

#### **NOTICE**

The TAILGATE OPEN warning light will go OFF and the alarm will stop when body is FULLY down and the tailgate is completely closed.

#### E. Lower and Lock the Tailgate (Continued)



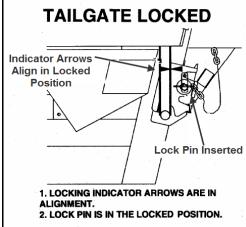


Figure 63. Tailgate Lock Indicators

#### F. Clean and Inspect the Hopper and Packer Panel

- 1. Put the unit in the Lock-Out/Tag-Out mode, turn the engine OFF and REMOVE the ignition keys.
- 2. Remove any remaining refuse in the hopper.
- INSPECT the packer panel and hopper floor for excessive wear or possible damage. If there is excessive wear or other damage, get the damage repaired or parts replaced as soon as possible.
- 4. Take the unit out of Lock-Out/Tag-Out, then use the ignition keys and start the unit.
- 5. MOVE the PUMP ON switch to ON.
- 6. Use the blade and upper panel controls and do at least one cycle of the blade and upper panel: STARTING POSITION, OPEN and PACK. If the blade and upper panel do not operate correctly, report the problem to your supervisor for maintenance action.

# G.Remove Refuse from the Engine and Exhaust Areas

IMPORTANT! Inspect unit for refuse on or about the engine or exhaust components. Remove all refuse to prevent a fire.

#### H. Sump Doors and Washout System

The NYC DuraPack® 5000 unit does not have sump doors.

If equipped, use the optional washout system to clean out the body and hopper at the end of a work day.

#### I. Preparing to Return to Route

See **Driving to Pick-up Locations** 93 and make sure the unit is properly set up for travel.

- The tailgate is fully LOWERED and CLOSED. Check the TAILGATE UP light in the cab. It must be OFF.
- The left and right hand doors are both secured. For each door:
  - o The quick release pin is secured in the barrel.
  - The wing screw is securely tightened against the door
- For a unit with refuse, the blade is up tight against refuse. For a unit with no refuse, the blade is at the START POSITION.

- If equipped, the PTO is DISENGAGED.
- The PUMP ON switch is OFF.
- You properly ADJUST and CLEAN the mirrors.
- · All outside lights turn ON and OFF.
- If equipped, the side access door is CLOSED and LOCKED.

NOTES:

# SECTION 10 END OF DAY PROCEDURES

#### **PREVIEW**

Read this section to learn about:

- Parking the Unit
- Final Inspection
- Report to Employer/Supervisor
- Ignition Keys

#### **END OF DAY PROCEDURES**

#### Parking the Unit

- 1. Park the unit in the space designated by your employer/supervisor.
- 2. Set the parking brake.

#### Final Inspection

Perform a final inspection of the unit:

- 1. Clear the area of all people.
- 2. Start the engine if it is not running.
- 3. Make sure all lights and in-cab control switches operate correctly.
- 4. Put the transmission in reverse while you press the service brake. The backup alarm should sound in the cab. If the alarm does not sound in the cab, report this to your employer/supervisor immediately.
- Check the unit for fluid leaks from the hoses, cylinders, valves, pump and fittings. Report any leaks to your employer/supervisor.

- Make sure all cylinders (except tailgate lock cylinders) are in their retracted position and make sure that the upper panel (slide) and sweep blade control levers are in the NEUTRAL position..
- 7. APPLY the parking brake.
- 8. Put the transmission in neutral and turn the engine OFF.
- 9. Put the unit in the Lock-Out/Tag-Out mode 55.
- 10. Open the air tank drain valve.
- 11. Turn the battery disconnect switch to OFF.
- 12. Follow the company policy for locking the cab doors.

#### Reports to Employer/Supervisor

Complete any reports required by your employer/supervisor. If you found any problems during the final inspection, prepare the necessary report for the employer/supervisor.

#### Ignition Keys

Put the ignition keys in a secure storage area designated by your employer/supervisor.

**NOTES:** 

INDEX 111

D
daily checklist 78 danger 19, 25 decal images 37, 38, 39, 40, 41, 42, 43, 45, 46, 47 decal placement 32, 33, 34, 36 driving to pick-up locations 93 ejector lever 66
ejector panel 87 ejector panel & cylinders 15 emergency stop (e-stop) button 68 end of day procedures 109 extend/EXTEND 19
Cactory body props 75 ilter bypassed indicator light 62 inal inspection 109 force to neutral 19, 61 front head 15, 19 FULLY RETRACTED POSITION 19

Issued December 2024 Index Copyright 2024, The Heil Co. Printed in the U.S.A.

112 **INDEX** 

G glossary 19 H harm 19	locking out the Lock-Out/Tage Lock-Out/Tage lower and lock lower/LOWE
hazard 19	M
hopper 15, 19	
hopper light switch 62, 68	may 19 must 19
hopper sill 15	must 19
how to use this manual 5	N
hydraulic oil tank 15, 86 hydraulic oil tank sight gauge 86	
hydraulic oil tank sight gauge 86 hydraulic pump 15	notice 19,
Trydradiio pump 10	Ο
	off/OFF 19
ignition keys 109	on/ON 19
illuminate 19	operator 1
important safety precautions 26	overhead cle
in-cab control panel 61, 62	overview of la
incident 19	procedures
in-transit position 88	<b>n</b>
	Р
L	PACK POSI
LATCHED 19	packer blade
leaving the route for the landfill/transfer station 98	packer blade
LOAD POSITION 19	packer panel
loading refuse manually 94	packer switc

LOCK 10 the unit 55 g-Out 53 g-Out procedure 55 ck the tailgate 103, 104 R 19

25

9 9 27 earances andfill/transfer station/recycle center 101

ITION 19 e 15 e lever 63 15, 19 62

113

packing on-the-move 97 packing refuse into the body 96 parking the unit 109 precautionary statements 25 preparing the unit to check the hydraulic oil level 85 preparing to return to route 105 pressure washer precautions product nomenclature 14. 15 propping the tailgate 75. 76 PTO 19

### R

raise/RAISE 19
recommended hydraulic oil 85
REL 19
remove refuse from the engine and exhaust areas 105
reports to employer/supervisor 109
retract/RETRACT 19
RPM 19

# S

serial plate 13 serial plate location 12 setting up the unit for dumping 101 should 19 side access door 15. 19 slide (upper panel) assembly 15 slide/blade controls 15 standard indicator lights 62

standard outside controls 63, 64, 65, 66, 67, 68 standard toggle switches 62 streetside vs. curbside 12 sump doors and washout system 105

### T

**INDEX** 

tailgate 15 tailgate access covers 19 tailgate clear switch 67 tailgate cylinders 15 tailgate left and right access covers 15 tailgate lever 66 tailgate open indicator light 62 tailgate props 15 tailgate raise cycle 87 tailgate raise switch throttle advance 15. 19 throttle advance switch to the operator 7.8 to the owner 6 traveling position 88

### U

unit 19
UNLATCHED 19
unload refuse 102
unloading 27
unlock and raise the tailgate 102
unlocking and raising the tailgate 101

INDEX 114

upper panel 19
upper panel control lever 65
upper panel lever 63
use of curb side drive 93
use personal protective equipment 27



warming up the hydraulic oil 84
warning 19, 25
warranty claims and inquiries 9
washout system 109
when working in or around the vehicle 27



#### HEIL ENVIRONMENTAL WARRANTY STATEMENT

Our products are subject to a limited warranty as outlined in the document linked below – please see the linked Heil Warranty Policies & Procedures for our full, limited warranty.

As a summary, The Heil Co. d/b/a Heil Environmental ("Heil") warrants its solid waste collection equipment to be free from defects in material and workmanship under normal use for a period of one (1) year or 2000 hours of operation (whichever comes first) from the date of equipment In-Service or during the period of coverage offered by an extended warranty program (if one is offered on a particular product), when proper service and maintenance as described in Heil Service Bulletins and Parts & Service Manuals are performed. The standard or extended equipment warranty is not transferable except for sales demonstration units. Heil only warrants the collection body. Please consult respective chassis manufacturer for respective specifics on chassis.

Ask your local Heil Dealer about our Extended Warranty offerings or contact Heil Customer Care at 866-ASK-HEIL (866.275.4345). For Warranty programs for international accounts outside of North America please consult with your Regional Manager for further details and/or appropriate policies.

EXCEPT AS CONTAINED IN THE HEIL WARRANTY POLICIES AND PROCEDURES, HEIL MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. HEIL DOES NOT ASSUME ANY LIABILITY FOR LOSS OF PROFITS, PRODUCT, TIME, OR ANY OTHER DIRECT, INCIDENTAL, OR INDIRECT CONSEQUENTIAL LOSSES, DAMAGES OR DELAYS. ANY IMPROPER USE, OPERATION BEYOND RATED EQUIPMENT/ COMPONENT CAPACITY, SUBSTITUTION OF PARTS THAT ARE NOT HEIL APPROVED, OR ANY ALTERATION OR REPAIR BY OTHERS IN SUCH A MANNER AS IN HEIL'S SOLE JUDGMENT AFFECTS THE PRODUCT OPERATION OR INTEGRITY SHALL VOID THE WARRANTY.

Heil retains the right to modify its factory warranty program at any time. The warranty in place at the time of your respective purchase applies.

Please see the full limited warranty as outlined at <a href="https://www.heil.com/warranty/">https://www.heil.com/warranty/</a> under Heil Warranty Policies and Procedures.



#### **WE NEVER STOP WORKING FOR YOU**

www.heil.com

Customer Care: 866-ASK-HEIL

(866-275-4345)

The Heil Co.

4301 Gault Avenue North Fort Payne, AL 35967-9984

Parts Central:

800-528-5308

Technical Service:

866-310-4345

TechSupport@DoverESG.com