

INNOVATIONS IN REFUSE & RECYCLING RECYCLING

- 1. RECYCLING**
- 2. ORGANICS**
- 3. ELECTRIFICATION**
- 4. MISC.**

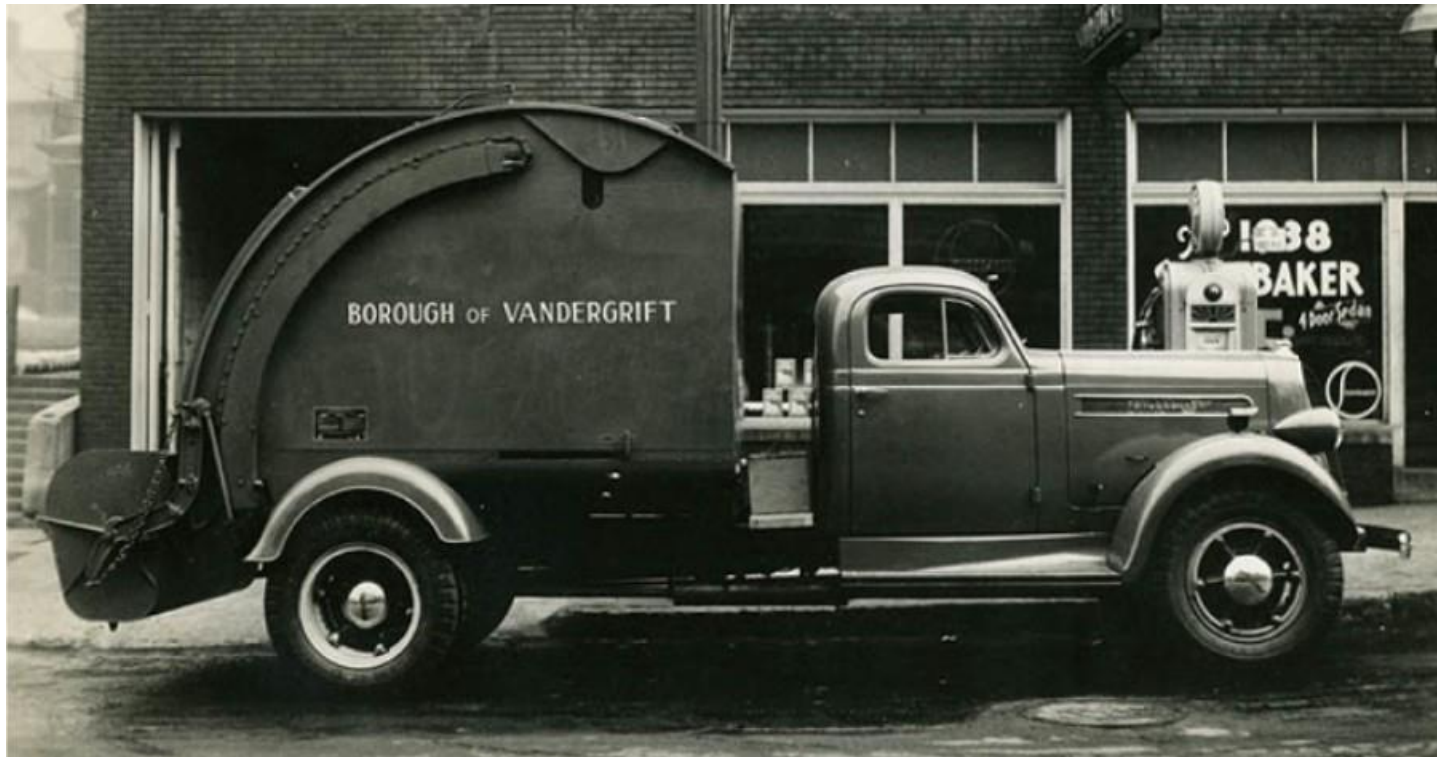
ROLLINS MACHINERY - Overview

ROLLINS
SINCE 1946

- Locally-owned & Family-operated
- Established in 1946 in Vancouver by Fred Rollins
- Rollins has grown into one of the largest equipment suppliers in British Columbia
- To date Rollins has approximately 80 employees
- 4 Full Service locations in Langley, Chilliwack, Chemainus, & Kelowna
- Industry lines include: **Refuse & Recycling**, Sewer & Water, Street Sweeping & Roadside Mowing, Farm & Agriculture, Golf & Municipal Turf mowing, & Construction







1932 Leach Rearloader

60/40 Split, Cart Tipper, Split Chute, 3CY Glass in Hopper



RECYCLING

Single Stream, Manual, 5CY Glass Compartment in Body



RECYCLING

ROLLINS
SINCE 1946

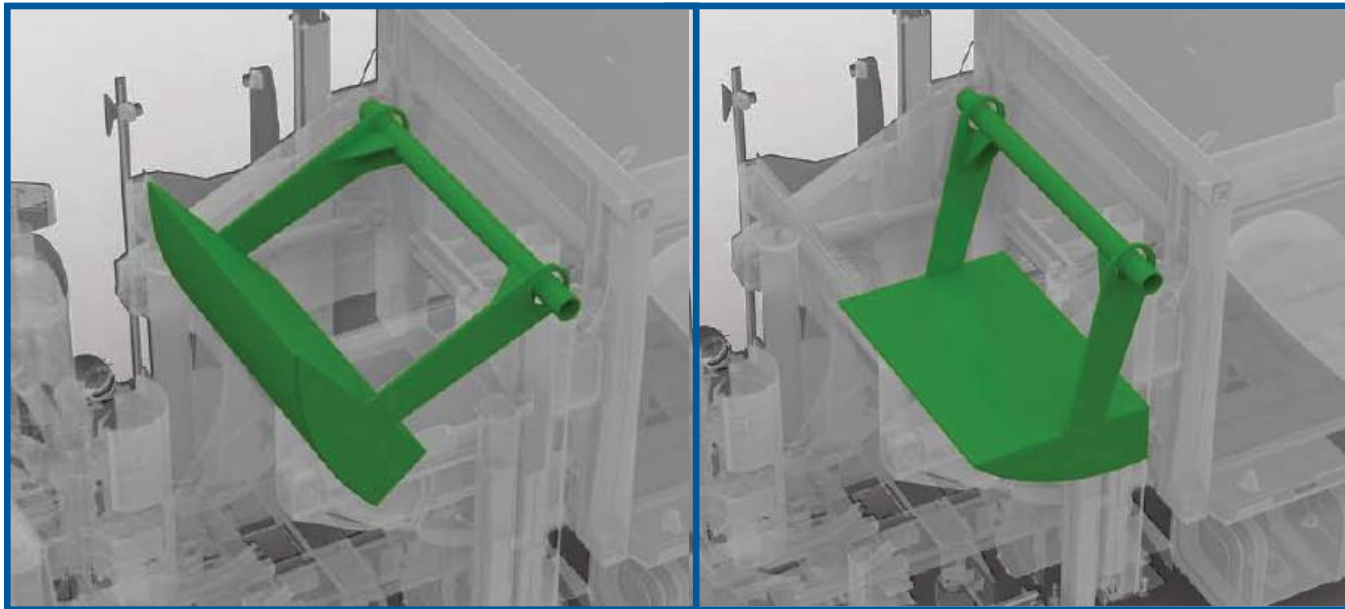
Single Stream, AUTOMATED Helping Hand, 5CY Glass in Body





CNG
CNG READY
SINCE 2001

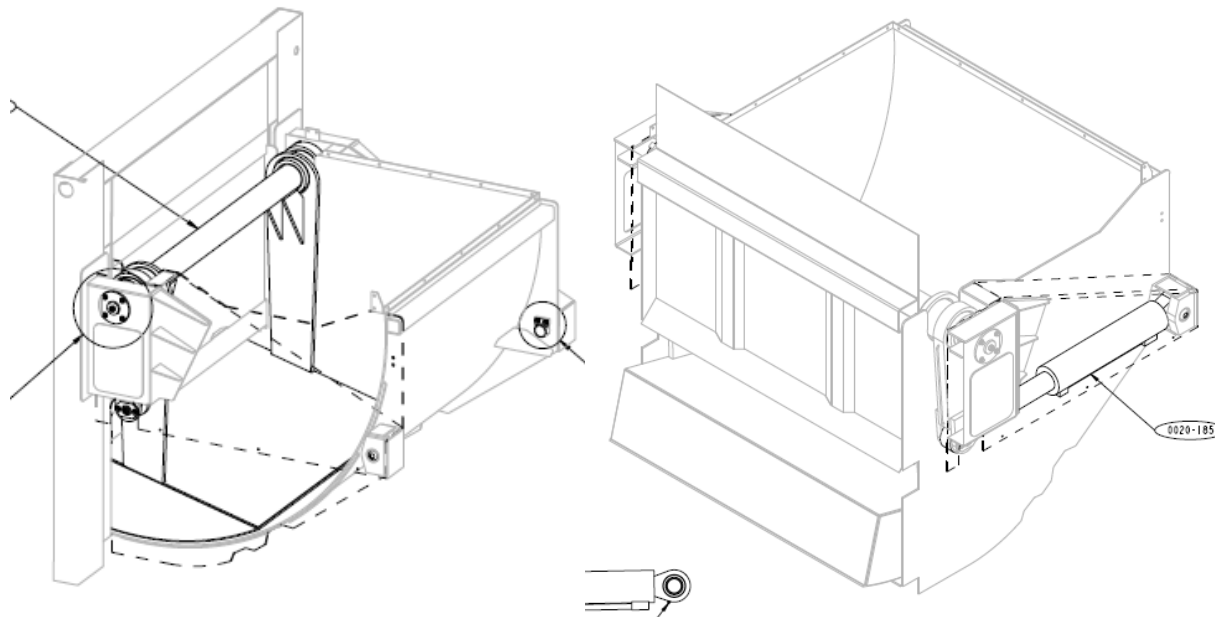
PENDULUM PACKER



Increased Maintenance Safety with Self Cleaning Packer
Lowest Maintenance Cost
Leak Proof Body 60" From The Floor

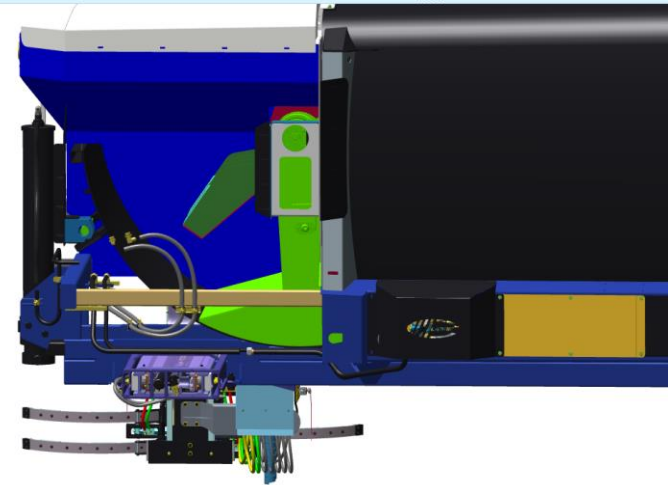
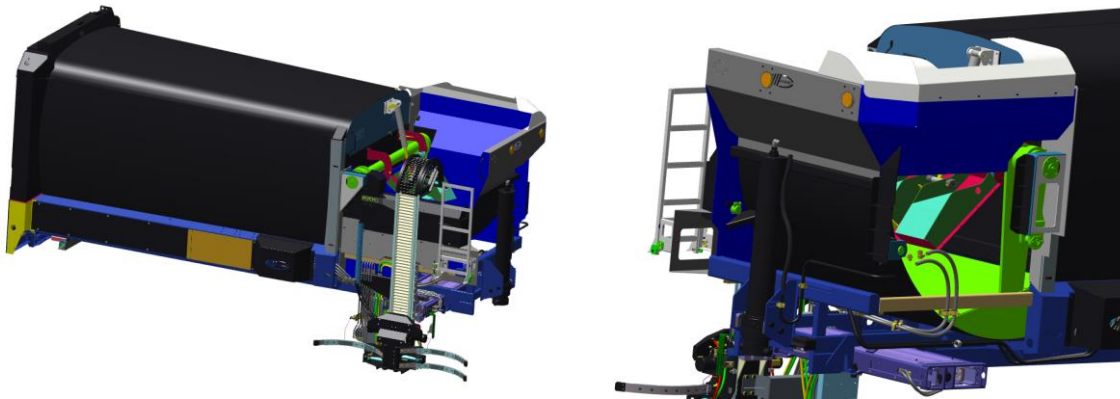
- NO NEED TO CLEAN BEHIND THE BLADE, SAFER FOR OPERATORS AND MAINTENANCE CREW.
- NO JUICE TRAPS
- LEAKPROOF BODY/ HOPPER ASSEMBLY
- EASY ACCESS TO PACKER CYLINDERS
- BODY DESIGN ALLOWS BETTER WEIGHT DISTRIBUTION AND SHORTER WHEELBASE

Pendulum Packer



ORGANICS

- **Design completed !**
- Two Pre-Production units will be built march 2023
- High interest in product and a good organics oriented hopper



Quotes start Jan 2023

ELECTRIFICATION



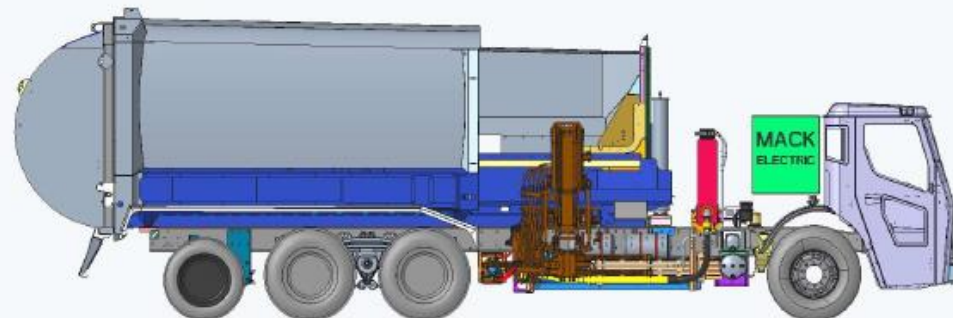
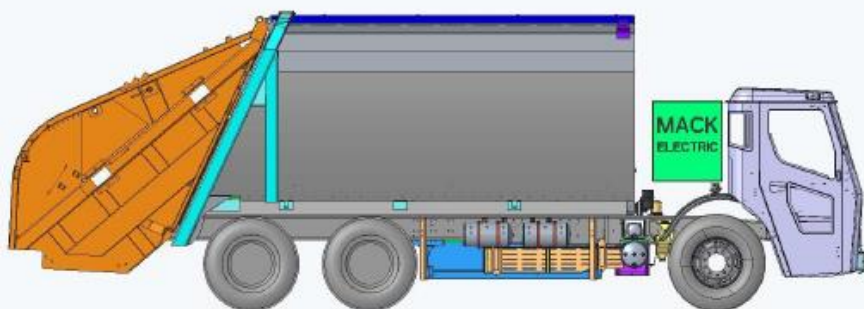
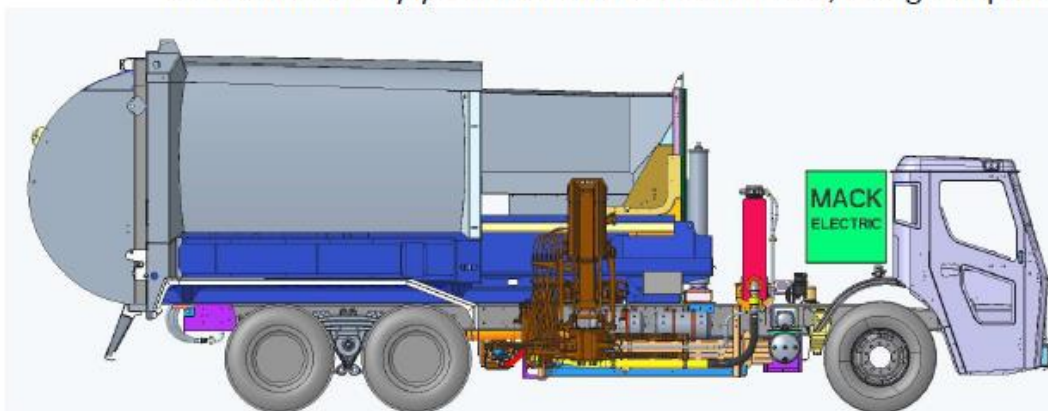
LABRIE BODY ON MACK LREV ELECTRIC

210" WB W/O TAG AXLE FOR ASL: 26YD (20+6)

210" WB W/TAG AXLE FOR ASL: 31YD (27+4) & 33YD (27+6)

185" WB RL 25YD, 215" WB RL 29YD, 220" WB RL 32YD

MACK not ready yet for Front Loader version, design in process



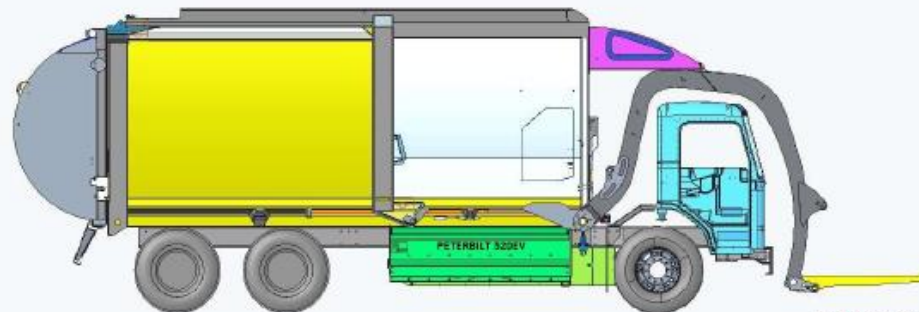
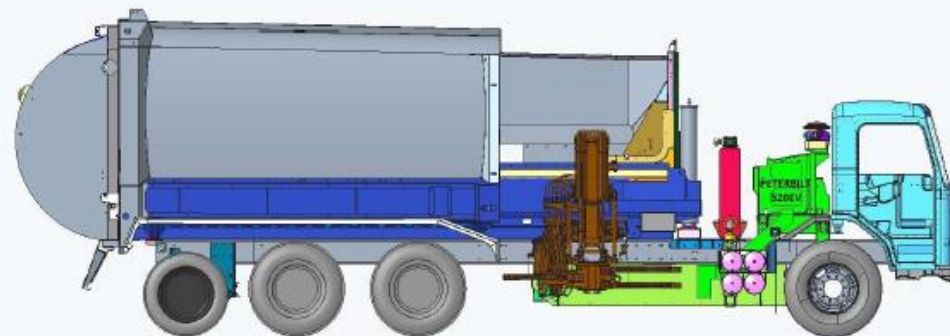
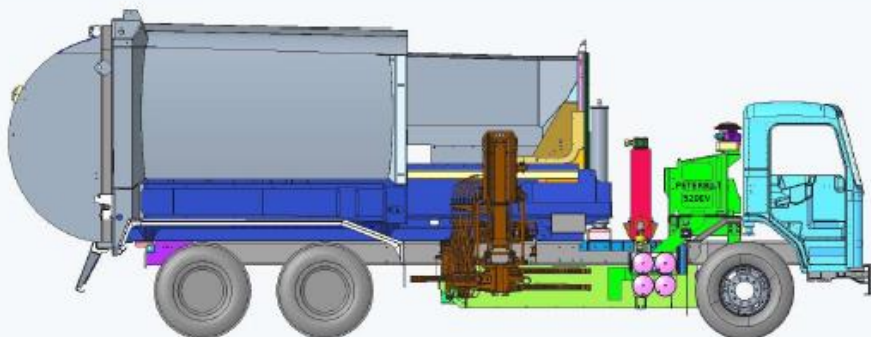
LABRIE BODY ON PETERBILT 520EV ELECTRIC

215" WB W/O TAG AXLE FOR ASL: 26YD (20+6) FIRST ASL ETA APRIL 2022

215" WB W/TAG AXLE FOR ASL: 31YD (27+4) & 33YD (27+6)

215" WB FOR RL: 25YD & 29YD

215" WB FOR FL: 40YD (34+6)





**WEIGHT DISTRIBUTION # LREV
AUTOMIZER 26 YARD³ ON CHASSIS MACK LREV 6X4 ELECTRIC**

<i>AS PER WEIGHT REGULATION</i>		REAR AXLE	FRONT AXLE	WEIGHT	
CHASSIS WEIGHT		9 860	14 940	24 800	
BODY & OTHER COMPONENTS		10 991	4 203	15 194	WHEELBASE 210
TOTAL EMPTY BODY + CHASSIS		20 851	19 143	39 994	
					CAPACITY 26 (20+6)
PAYLOAD		19 933	-2 501	17 432	
REFUSE					LOAD DENSITY 670
		REAR AXLE	FRONT AXLE	TOTAL	
TOTAL WEIGHT		40 784	16 642	57 426	
<i>LEGAL LIMIT AS PER WEIGHT REGULATION</i>		40 784	19 621	60 405	BC's EV Trucks Regulation

<i>AS PER CHASSIS CAPACITY OR MAXIMUM DENSITY</i>		REAR AXLE	FRONT AXLE	WEIGHT	
CHASSIS WEIGHT		9 860	14 940	24 800	
BODY & OTHER COMPONENTS		10 991	4 203	15 194	WHEELBASE 210
TOTAL EMPTY BODY + CHASSIS		20 851	19 143	39 994	
					BODY CAPACITY 26 (20+6)
PAYLOAD		25 149	-3 155	21 994	
REFUSE					LOAD DENSITY 846
		REAR AXLE	FRONT AXLE	TOTAL	
TOTAL WEIGHT		46 000	15 988	61 988	
<i>LIMITATION AS PER CHASSIS CAPACITY OR MAXIMUM DENSITY</i>		46 000	20 000	66 000	

MEETS BRITISH COLUMBIA' WEIGHT REGULATION WITH SHOWN DENSITY. FRONT AXLE WEIGHT REGULATION IS FOR 445/65R22,5 TIRE SIZE. MEETS AXLE CAPACITY WITH SHOWN DENSITY. ACTUAL CHASSIS WEIGHT MUST BE AS USED FOR CALCULATION. WEIGHT DISTRIBUTION SUBJECT TO CHANGE. WEIGHT SHOWN HERE IS AN ENGINEERING ESTIMATE AND DOES NOT INCLUDE UNPUBLISHED OPTIONS. ACTUAL "SHIPPING" WEIGHT MAY VARY.

WEIGHT in POUNDS, VOLUME in CUBIC YARD, DENSITY in LBS/CU.YD

CALCULATED BY : T.CHIASSON
DATE : 2023-02-22

APPROVED BY: _____



WEIGHT DISTRIBUTION # LREV
2RIII 25 YARD³ ON CHASSIS MACK LR 6X4 DIESEL

<i>AS PER WEIGHT REGULATION</i>		REAR AXLE	FRONT AXLE	WEIGHT	
CHASSIS WEIGHT		10 250	14 853	25 103	
BODY & OTHER COMPONENTS		18 161	-860	17 301	<i>WHEELBASE</i> 185
TOTAL EMPTY BODY + CHASSIS		28 411	13 993	42 404	
					<i>BODY CAPACITY</i> 25
PAYLOAD		12 373	2 378	14 751	
REFUSE					<i>% FILL</i> 100
					<i>DENSITY</i> 590
TOTAL WEIGHT		40 784	16 371	57 155	
<i>LEGAL LIMIT AS PER FEDERAL BRIDGE LAW</i>		40 784	18 739	59 523	BC's EV Weight Regulation

<i>AS PER CHASSIS CAPACITY OR MAXIMUM DENSITY</i>		REAR AXLE	FRONT AXLE	WEIGHT	
CHASSIS WEIGHT		10 250	14 853	25 103	
BODY & OTHER COMPONENTS		18 161	-860	17 301	<i>WHEELBASE</i> 185
TOTAL EMPTY BODY + CHASSIS		28 411	13 993	42 404	
					<i>BODY CAPACITY</i> 25
PAYLOAD		17 589	3 381	20 970	
REFUSE					<i>% FILL</i> 100
					<i>DENSITY</i> 839
TOTAL WEIGHT		46 000	17 373	63 373	
<i>LIMITATION AS PER CHASSIS CAPACITY OR MAXIMUM DENSITY</i>		46 000	20 000	66 000	

COMMENTS:

MEETS BRITISH COLUMBIA' WEIGHT REGULATION WITH 100% OF FILLING AND SHOWN DENSITY. FRONT AXLE WEIGHT REGULATION IS FOR 425/65R22,5 TIRE SIZE. MEETS AXLE CAPACITY WITH SHOWN DENSITY. ACTUAL CHASSIS WEIGHT MUST BE AS USED FOR CALCULATION. WEIGHT DISTRIBUTION SUBJECT TO CHANGE. WEIGHT SHOWN HERE IS AN ENGINEERING ESTIMATE AND DOES NOT INCLUDE UNPUBLISHED OPTIONS. ACTUAL "SHIPPING" WEIGHT MAY VARY.

WEIGHT in POUNDS, VOLUME in CUBIC YARD, DENSITY in LBS/CU.YD

CALCULATED BY : T.CHIASSON APPROVED BY: _____

DATE : 2023-02-22

Payload Increases with EV



COMPLIANCE CIRCULAR
NO. 08/12
June 11, 2012

SUBJECT: Amendment Additional Axle Weight Allowances for Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG) Fueled Trucks or Truck Tractors

Managers, Victoria Regional CVSE Managers Area Vehicle Inspectors Deputy Director, CVSE ADM, Highways Department	Passenger Transportation Board Passenger Transportation Branch Carrier Safety Inspectors Government Agents Law Enforcement Agencies	Commercial Transport Insp. (Inspection Stations) ICBC Supt of Motor Vehicles Trucking Industry
--	---	--

PURPOSE OF CIRCULAR

To advise industry, staff, and the general public about the additional weight tolerance to compensate for the heavier fuel tanks used by Liquefied Natural Gas (LNG) or Compressed Natural Gas (CNG) fueled trucks and buses.

IMPLEMENTATION

The weight allowance is only permitted on the steering axle and drive axle group to a combined maximum weight allowance of 1,500kg. The overall Gross Vehicle Weight (GVW) for the vehicle or combination is also increased accordingly. The maximum GVW can only exceed 63,500kg on an approved 72-, 80- and 85-tonne routes. See Chapter 6 of the [Commercial Transport Procedures Manual](#).

Qualifying vehicles must not exceed the original equipment manufacturers (OEM's) stated maximum Gross Axle Weight Rating, Gross Vehicle Weight Rating, or 100 kg/cm of tire width.

The allowance applies to trucks, truck tractors, semi-trailer combinations, truck and pony/full trailer combinations and buses that are fueled by LNG or CNG.

With the exception of the steering axle weight, seasonal road restrictions continue to apply. The maximum allowable GVW must be reduced accordingly.

BACKGROUND

LNG and CNG are an abundant, clean and environmentally friendly fuel with less emission than diesel fuel, motive fuel for heavy duty trucks, truck tractors and buses. To encourage wide spread use of this new fuel type, the Commercial Vehicle Safety and Enforcement (CVSE) is providing additional axle weight allowances to counterbalance the added weight of the LNG or CNG equipment installed on the LNG or CNG fueled truck, truck tractor or bus.

EASE OF MAINTENANCE

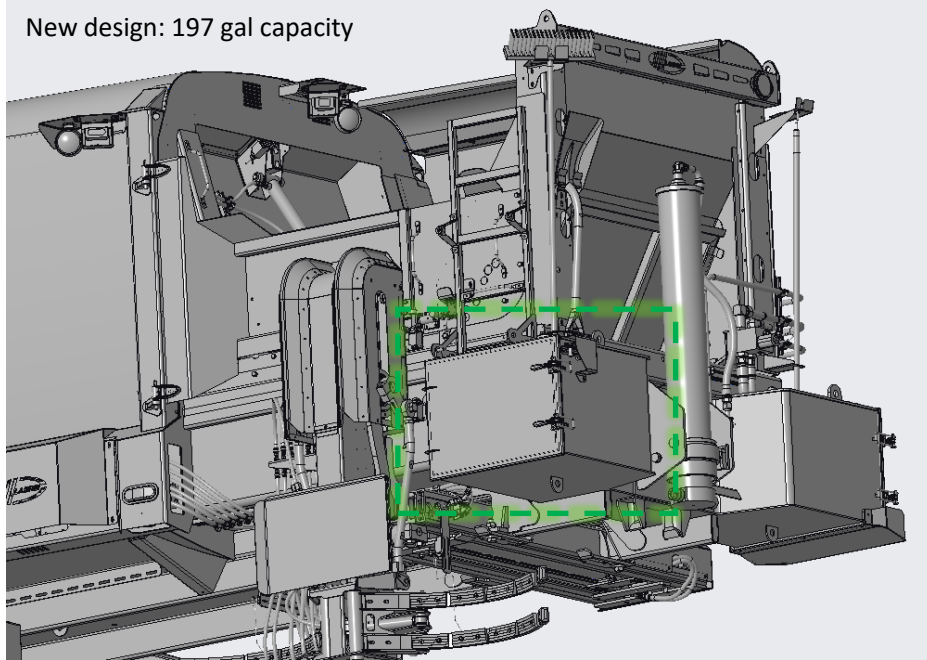
Hopper Upgrades:

- 700% larger sump doors
- Heavier duty follower panels
- Heat resistant upgraded packer cylinders

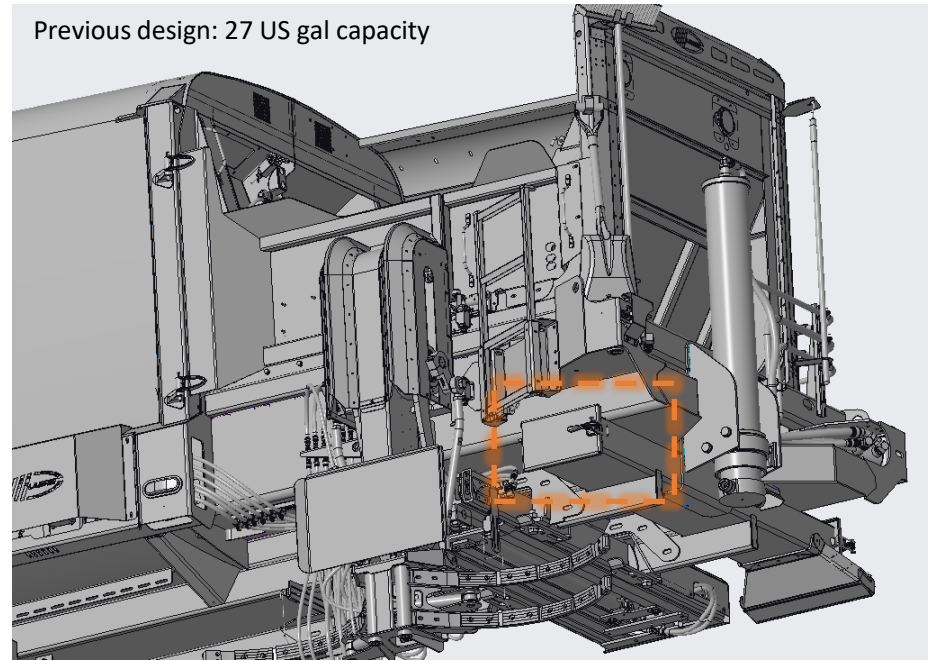
Pendulum Packer

Sump boxes: increased by more than 700% compared to previous design

New design: 197 gal capacity

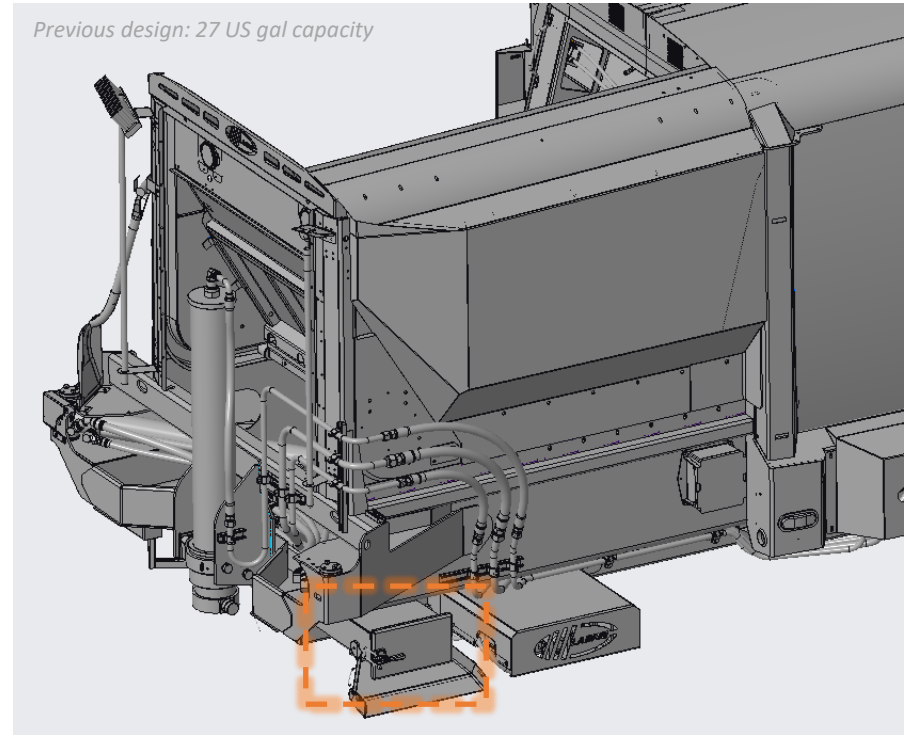
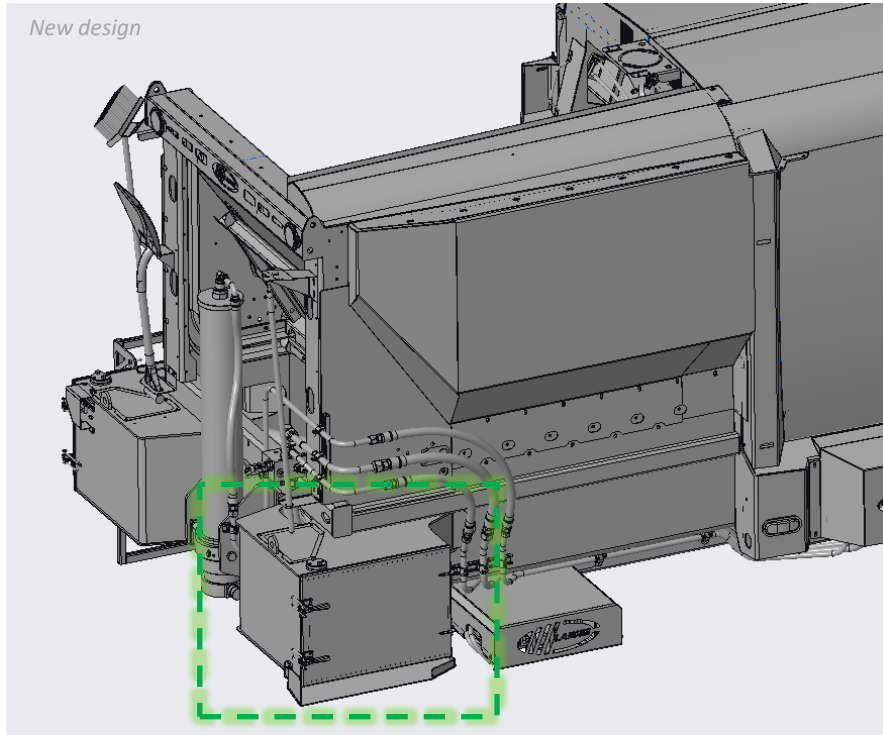


Previous design: 27 US gal capacity



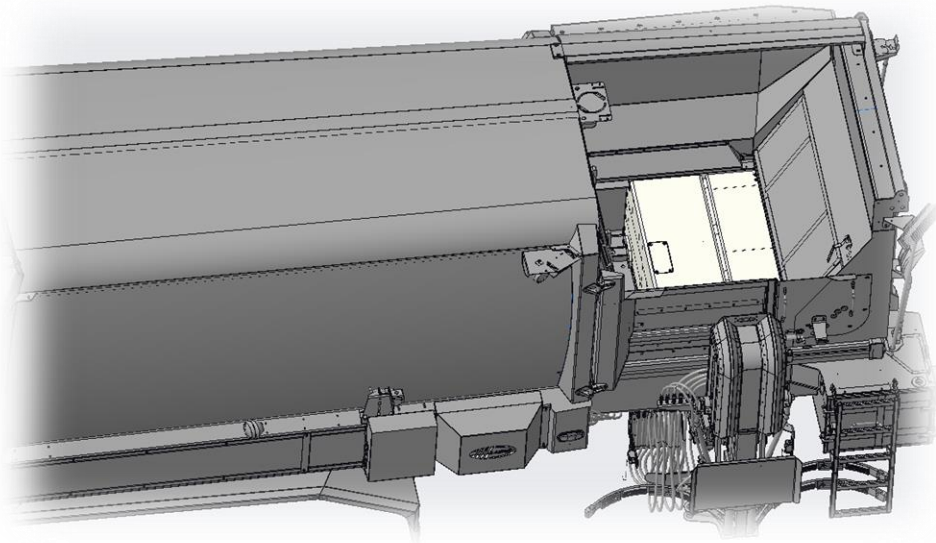
Curb side views

Sump boxes: increased by more than 700% compared to previous design



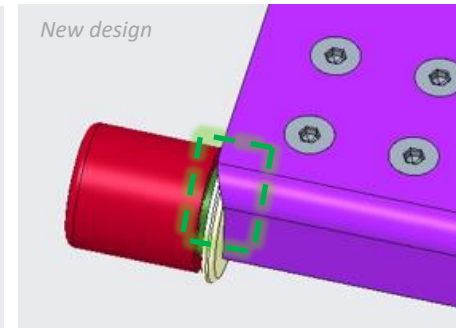
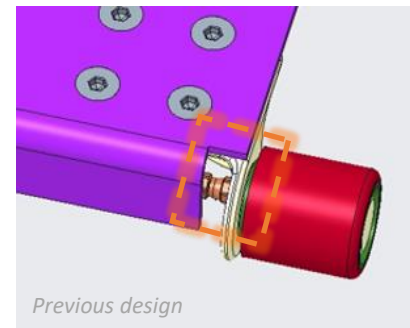
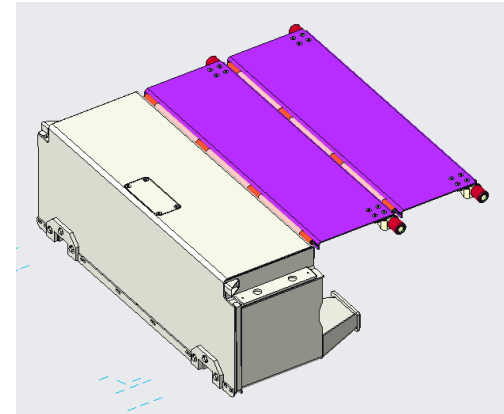
Street side views

Improved follower panels and roller tracks

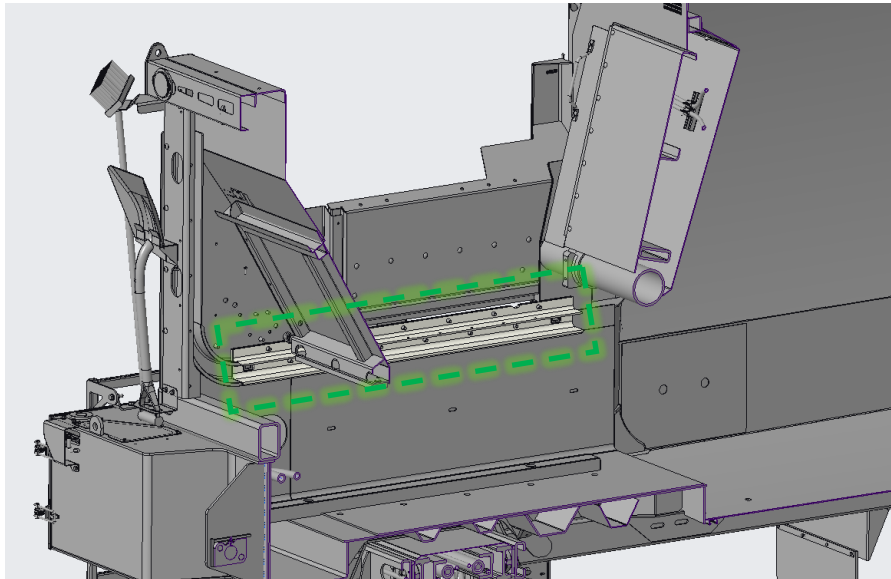


By changing the clearance around the rollers, the engineers succeed in locally reducing by 10% the stresses.

This consequently reduces the risk of the panel tearing during the impact of heavy waste, without increasing significantly the weight of the whole assembly.

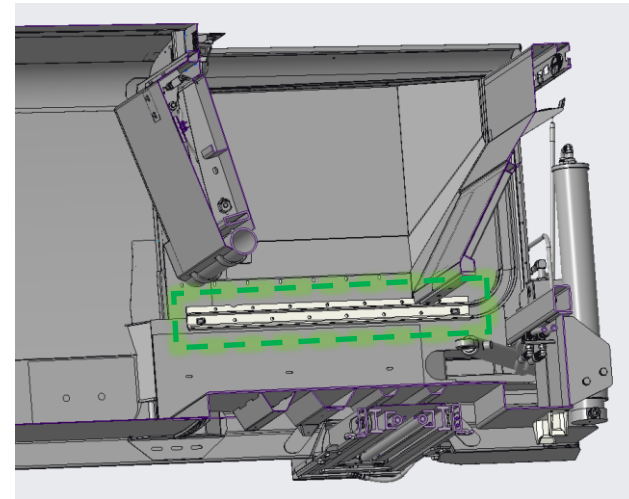


Improved follower panels and roller tracks (cont'd)



Curb side

- The horizontal track is now designed in one length, thus decreasing the possible misalignments within the parts and also with the elbow.
- Made of two parts (upper and lower) fully bolted on each hopper sides to ease their replacement.



Street side

SECURITY

LIVE MONITORING

EXPANSIVE PRODUCT LINE



Co-Mingle w Glass



Split-Body Automated



Zero-Grab Automated



Mini Automated

EXPANSIVE PRODUCT LINE



Side Loaders



Specialized Collection



Front Loaders



Rear Loaders



EXPERT SERIES
Helping-Hand, Dual HH, Manual



AUTOMIZER SERIES
Right-Hand, Helping-Hand,
Full Eject, Transformer



IMPAC
Commercial Side Loader



PREDATOR



MINIMAX SERIES
Helping-Hand, Manual



ALLEYGATOR SERIES
AGR, Zero



SPRINTER
Commercial Side Loader



TOP SELECT SERIES
1000, 2000



PRO-CV
Residential Organics



Organics Collection



STARLIGHT



SUPERDUTY



PCO-CV
Commercial Organics



FEATHERWEIGHT



2R-III



2R-II



ALPHA-III



MINI REAR



SPLIT REAR

Thank You!

