

RESOLUTION NO. R21-56

A RESOLUTION OF THE CITY COUNCIL SELECTING KOIS BROTHERS AS THE SUCCESSFUL BIDDER FOR THE CITY'S PURCHASE OF A GARBAGE TRUCK.

WHEREAS, the City of Laurel planned to purchase new equipment, specifically a Garbage Truck, which was publicly advertised for competitive bids from interested and qualified bidders; and

WHEREAS, City Staff reviewed and considered the bids received and recommends the City Council award the bid to the qualified and responsive bid that appears to be in the City's best interest; and

WHEREAS, Kois Brothers submitted a bid of \$376,319.00 for a Garbage Truck that meets the City's specifications. City Staff determined the bid is in the best interest of the City. The Bid documents are attached hereto and incorporated herein.

NOW, THEREFORE, BE IT RESOLVED the City Council of the City of Laurel, Montana, finds that the City has followed its procurement policies and state law requiring competitive bidding; and

BE IT FUTHER RESOLVED the City Council hereby awards the bid to Kois Brothers for its bid price of \$376,319.00 for the Garbage Truck purchase. The Mayor and City Clerk are authorized to sign all necessary documents, agreements or contracts on the City's behalf consistent with this resolution for the purchase.

Introduced at a regular meeting of the City Council on July 27, 2021, by Council Member Stokes.

PASSED and APPROVED by the City Council of the City of Laurel this 27th day of July 2021.

APPROVED by the Mayor this 27th day of July 2021.

CITY OF LAUREL



Thomas C. Nelson, Mayor

ATTEST:



Bethany Langve, Clerk-Treasurer, Clerk-Treasurer

Approved as to form:



Sam Painter, Civil City Attorney

RECOMENDATION

TO: Thomas C. Nelson, Mayor
Bethany Langve, City Clerk Treasurer
FROM: Matt Wheeler, Public Works Superintendent
Nathan Herman, Utility Plants Superintendent
SUBJECT: New refuse truck purchase
DATE: July 16, 2021

Mayor and Bethany,

The City received 7 bids for a new refuse truck. The bids ranged from \$307,931.00 to \$376,319.00.

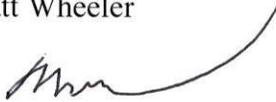
The bids are as follows:

Billings Peterbilt	Peterbilt Cab/Scorpion Body	\$351,067.00
Billings Peterbilt	Peterbilt Cab/ Curbtender Body 27yd	\$307,931.00
Billings Peterbilt	Peterbilt Cab/Curbtender Body 31yd	\$316,429.00
SWS Equipment	Autocar Cab/Scorpion Body	\$375,175.00
Kois Brothers	Peterbilt Cab/Heil Body	\$352,546.00
Kois Brothers	Mack Cab/Heil Body	\$354,741.00
Kois Brothers	Autocar/Heil Body	\$376,319.00

After reviewing the City specifications and evaluating the past history and future needs of the city, It is our recommendation to award the bid to Kois Brothers for a Autocar with a Heil body as it meets all the specifications.

Sincerely,

Matt Wheeler



Nathan Herman



Cc. Kurt Markegard, Public Works Director

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

CONTRACT/BID DOCUMENTS ATTACHED:

INTENT AND SCOPE OF OPERATIONS

CALL FOR SEALED BIDS: NOTICE TO BIDDERS

(BID BOND AND PERFORMANCE BOND)

INSTRUCTIONS TO BIDDERS

CONTRACT SPECIFICATIONS:

2021 (OR NEWER) REFUSE TRUCK

STANDARD TERMS AND CONDITIONS

INVITATION TO BID

FORM OF AGREEMENT

FORM OF PROPOSAL (BID PROPOSAL)

INTENT AND SCOPE OF OPERATIONS

This bid is for the purpose of entering into a contract for a 2021 (OR NEWER) REFUSE TRUCK for the City of Laurel Public Works Department. The successful bidder agrees to provide the City of Laurel with acceptable quality of equipment/services, performance and workmanship as determined by the City of Laurel.

It is the purpose of this bid to obtain the best quality of equipment at the most favorable price to the City of Laurel. Consideration will be given for the level of service offered and ability to meet stated specifications as outlined in the contract document.

END: INTENT AND SCOPE OF OPERATIONS

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

CALL FOR SEALED BIDS: NOTICE TO BIDDERS

Sealed bids entitled: **2021 (OR NEWER) REFUSE TRUCK**

For the City of Laurel Maintenance Department, Laurel, Montana

Will be received addressed to City Clerk of Laurel, Montana, at the office of the City Clerk, City Hall, Laurel, Montana 59044, until 1:00 p.m. July 15, 2021.

More specific additional information regarding the **2021 (OR NEWER) REFUSE TRUCK** may be obtained by contacting Matt Wheeler, Public Works Superintendent, at 115 W. First Street, Laurel, Montana, phone number of 406-628-4796 or visit <https://cityoflaurelmontana.com/rfps>.

Each bid or proposal must be accompanied by a Certified Check, Cashiers Check, or Bid Bond payable to the City of Laurel, Montana, in an amount not less than ten per cent (10%) of the total amount of the bid. The bid bond will be retained by the City Clerk until the successful bidder enters into a contract with the City of Laurel. If the successful bidder enters into no contract within 30 days the bond will be forfeited to the City of Laurel. Bid bonds will be returned to the unsuccessful bidders immediately after final action on the bid by the City Council.

No bids may be withdrawn after the scheduled time for the public opening of bids, which is at 01:00 9.m. July 15, 2021, at 115 W. 1st Street Laurel, MT 59044.

The right is reserved to reject any or all proposals received, to waive irregularities, to postpone the award of the contract for a period of not to exceed thirty (30) days, and to accept that proposal which is in the best interests of the City of Laurel, Montana.

The City of Laurel is an Equal Opportunity Employer

Published 7/2/2021; 7/9/2021

Bethany Langve, City Clerk/ Treasurer

END: CALL FOR SEALED BIDS: NOTICE TO BIDDERS

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

INSTRUCTIONS TO BIDDERS

EXAMINATION OF DOCUMENTS

Before submitting the proposals, the bidder shall:

- (a) Carefully examine the Standards and Specifications as well as all other attached documents.
- (b) Fully inform themselves of the existing conditions and limitations.
- (c) Include with the bid sufficient information to cover all items required in the specifications.

BID COMPLIANCE

It shall be the responsibility of the bidder to see that all bids are sealed and submitted to the office of the City Clerk at City Hall, 115 W. First Street, Laurel, Montana 59044, before 01:00 p.m. July 15, 2021.

BID PROPOSAL MODIFICATIONS

Proposals shall be made on form provided herein; they shall not contain any recapulation of the work done. Modifications, additions or changes to the terms and conditions of this invitation to bid may be cause for rejection of the bid. Bids submitted on other forms may be rejected. No oral, telephone, or telegraphic bids or modifications will be considered.

CERTIFICATION OF ALTERATION OR ERASURE

A bid shall be rejected should it contain any material alteration or erasure, unless, before the bid is submitted, each such alteration has been initialed in INK by the authorized agent signing the bid.

INTERPRETATION PRIORITY

Should a bidder find discrepancies in, or omissions from, the specifications, or be in doubt as to their meaning, bidder shall notify the department head, Matt Wheeler at the address noted above, who will send written instructions or addenda to all bidders. The City will not be responsible for oral interpretation. All addenda issued prior to bid opening shall be incorporated into and become part of the contract agreement upon award. Question received less than ninety-six (96) hours before the bid opening cannot be answered.

SIGNATURE

All bids shall be typewritten or prepared in ink and must be signed in longhand by the bidder or bidders agent or designee, with his/hers usual signature. A bid submitted by a partnership must be signed with the partnership name to be followed by the signature and designation of the partner signing. Bids by corporations must be signed with the legal name of the corporation, followed by the name and signature of an authorized agent or officer of the corporation. Bids submitted by a proprietorship must be signed by the owner; name of each person signing shall be typed or printed legibly below the signature.

WITHDRAWAL OF BIDS

Bidders may withdraw their bid either personally or by written request at any time prior to the time set for bid opening. No bid may be withdrawn or modified after the time set for opening, unless and until award of the contract is delayed for a period exceeding thirty (30) days.

CERTIFICATION

The bidder certifies that the bid has been arrived at by the bidder independently and has been submitted without any collusion designed to limit independent bidding or competition. The bidder further certifies that the materials, products, services and/or goods offered herein meet all requirements of the stated specification and are equal in quality, value and performance with highest quality, nationally advertised brand and/or trade names.

EVIDENCE OF QUALIFICATION

Upon request of the City of Laurel, a bidder whose proposal is under consideration for award may be required to manifest satisfactory evidence of his financial resources, experience, the organization and equipment as well as service provisions bidder has available. In determining the lowest responsible bidder, in addition to price, the following considerations may be addressed:

- (a) The ability, capacity, character, integrity, and skill of the bidder to perform the contract or provide the service required.
- (b) Whether the bidder can perform the contract within the time specified.
- (c) The quality of performance of previous contracts, agreements, services and/or performance.
- (d) Previous and/or existing compliance by the bidder with laws relating to the contract or services.
- (e) Such other information, which may be secured having a bearing on the decision to award the contract.

BID BOND

Each bid or proposal must be accompanied by a Certified Check, Cashiers Check, or Bid Bond payable to the City of Laurel, Montana, in an amount not less than ten percent (10%) of the total amount of the bid. The bid bond will be retained by the City Clerk until successful bidder enters into a contract with the City of Laurel. If the successful bidder enters into no contract

within thirty (30) days the bond will be forfeited to the City of Laurel. Bid bonds will be returned to the unsuccessful bidders immediately after final action on the bid by the City Council.

END: INSTRUCTIONS TO BIDDERS

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

CONTRACT SPECIFICATIONS

2021 (OR NEWER) REFUSE TRUCK

END SPECIFICATIONS

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

STANDARD TERMS AND CONDITIONS – PAGE 1

This contract includes the following Standard Terms and Conditions and includes, but is not limited to, the Invitation to Bid, Call for Sealed Bids, Specifications, Forms of Agreement, Instruction to Bidders, and Form of Proposal.

The contractor will not be liable for any delay in furnishing or failure to furnish service due to fire, flood, strike, lockout, dispute with workmen, act of God, or any cause beyond reasonable control.

In case of default by the successful bidder or failure to deliver the goods or services within the time specified, the City Purchasing Authority, after written notice, may procure them from other sources and hold contractor responsible for excess costs occasioned thereby.

The specifications attached to the instructions to bidders establish a standard of quality desired by the City of Laurel. Any bidder may submit quotations on any article, which substantially complies with these specifications as to quality, workmanship and service. The City of Laurel reserves the right to make its selection of materials or services purchased, based on its best judgment as to which articles substantially comply with the requirements of the specifications.

No alteration in any of the terms, conditions, delivery, quality, or specifications will be effective without prior written consent of the City of Laurel.

No exception to delivery or service dates shall be allowed unless prior written approval is first obtained for the City of Laurel.

All payments to the contractor shall be remitted by mail. The City shall not honor drafts, nor accept goods on a sight draft basis. Furthermore, the provisions or monies due under this contract shall not be assignable unless prior written approval is first obtained from the City of Laurel.

All goods, materials or services purchased herein are subject to approval by the City of Laurel. Any rejections of services, goods or materials, whether held by the City or returned, will be at the contractor's risk and expense.

The contractor agrees to assume all expense, protect and hold harmless the City, its officers, agents and employees against all claims and expense including, but not limited to, suits or proceedings for patent, trademark, copyright, or franchise infringement arising from the purchase, installation or use of the goods, material or services purchased herein.

The contractor further agrees to assume all expenses and damages arising from such claim, suits or proceedings.

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

STANDARD TERMS AND CONDITIONS – PAGE 2

Contractor agrees that the waiver, acceptance, or failure by the City to enforce any provisions, terms, or conditions of this contract shall not operate or be construed as a waiver of prior or subsequent breaches or the right of the City to thereafter enforce such provisions.

The contractor warrants all articles supplied under this contract conform to specification herein. The contractor will deliver a warranty stating that articles supplied under the contract are fit and sufficient for the purpose manufactured, merchantable, and free from defects.

In the event the City is entitled to a prompt payment or cash discount the period of computation shall commence on the date of delivery, or receipt of correctly completed invoices, whichever is later. If an adjustment in payment is necessary, the discount period shall commence on the date final approval for payment is authorized.

The contractor agrees not to be discriminate against any client employee or applicant for employment or for services, because of race, creed, color, national origin, sex or age with regard to, but not limited to, the following: employment upgrading; demotion or transfer; recruitment advertising; layoffs and termination; rates of pay or other forms of compensation; selection for training; rendition of services. It is further understood that any contractor who is in violation of this shall be barred forthwith from receiving awards of any purchase order for the City unless a satisfactory showing is made that discriminatory practices have terminated and that a reoccurrence of such acts are unlikely.

The City reserves the right to cancel and terminate this contract forthwith upon giving thirty (30) days written notice to the contractor. (This provision does not apply to the purchase of materials and equipment. A purchase order for materials and equipment is a binding contract.)

Contractor agrees that in the event suit is instituted by the City for any default on the part of the contractor, he shall pay to the City all costs and expenses expended or incurred by the City in connection therewith, and reasonable attorney fees.

Where applicable, possible or required, bidder is required to submit descriptive literature, sample material, design sketches and detailed shop drawings. Failure to submit required items may result in rejection of the bid or termination of contract.

The successful bidder may not make any advertising or sale use of the fact contract items are being used by purchaser and other approved agencies, under penalty of contract termination.

The Advertisement for Bids, the accepted Proposal, and the specifications, together form the contract and they fully act as if hereto attached or herein repeated.

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

STANDARD TERMS AND CONDITIONS – PAGE 3

This contract shall be governed by and construed in accordance with the laws of the State of Montana.

The contractor may not assign or subcontract the agreement or the right to receive reasonable performance of any act called for by the contract shall be deemed waived by a waiver by City of a breach thereof as to any particular transaction or occurrence.

Regardless of FOB point contractor agrees to bear all risks of loss, injury, or destruction of goods and materials ordered herein and such loss, injury, or destruction shall not release contractor from any obligation hereunder.

END: STANDARD TERMS AND CONDITIONS

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

INVITATION TO BID

RETURN TO: City Clerk, City of Laurel, P.O. Box 10, Laurel, Montana 59044

Please bid net prices at which you will agree to furnish required services. To receive consideration, this form must be signed in full by a responsible, authorized agent, office, employee or representative of your firm.

BID ITEM: 3 BIDS WITH HEIL BODY, AUTOCAR, MACK AND PETERBILT

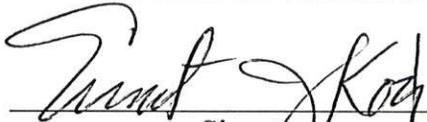
Enter full Company Name and Address

KOIS BROTHERS EQUIPMENT CO.
2107 HARNISH BLVD.
BILLINGS, MT 59101

CONDITIONS AGREEMENT

We have read and agree to the conditions and stipulations contained herein and to the Standard Terms and Conditions contained on the attached.

We further agree to furnish the services specified at the prices stated herein, to be delivered to the location and that date set forth herein.


Signature
VP SALES
Title
7-14-21
Date

END: INVITATION TO BID

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

FORM OF AGREEMENT – PAGE 1

AGREEMENT, made on the _____ day of _____, 2021, by and between
the City of Laurel and _____.

WITNESSTH that the above named company and the City of Laurel, for consideration,
hereinafter name agree as follows:

SCOPE OF OPERATION: The contractor shall provide material and equipment, perform the
work and do everything required by the specifications entitled:

CONTRACT SPECIFICATION:

TIME OF COMPLETION: Delivery of goods, equipment, and/or services shall be expected
within thirty (30) days of the award of bid.

FOLLOWING IS AN ENUMERATION OF THE CONTRACT BID

Intent and Scope of Operation
Call for Sealed Bids: Notice to Bidders
(Bid Bond/Performance Bond)
Instructions to Bidders
Contract Specifications
Standard Terms and Conditions
Invitation to Bid
Form of Agreement
Form of Proposal (Bid Proposal)

IN WITNESS WHEREOF, the parties hereto have executed this agreement to day and
year above written.

Kois Brothers Equipment Co.
Contractor
By: [Signature]
Title VP SALES

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

FORM OF AGREEMENT – PAGE 2

CITY OF LAUREL

BY: _____
MAYOR

ATTEST: _____
City Clerk

Approved as to form

END: FORM OF AGREEMENT

CITY CLERK
CITY OF LAUREL
P. O. BOX 10
LAUREL, MONTANA 59044

FORM OF PROPOSAL (BID PROPOSAL)

The undersigned hereby submits the following proposal: Having carefully examined the specifications entitled CONTRACT SPECIFICATIONS: INSERT DESCRIPTION OF BID ITEM(S) for the City of Laurel Public Works Department, as well as all other conditions affecting the bid, the undersigned proposes to furnish all equipment and services necessary to complete the work required.

MARCH OR APRIL 2022
Time and Date of Delivery BASED ON CHIP DELIVERY
(INSERT DESCRIPTION OF BID ITEM(S))

Net FOB Laurel, Montana \$ _____
THREE BIDS BELOW

(OPTIONS OR PAYMENT PLANS, IF APPLICABLE)

SEE ATTACHED UNDER SUPPORT INFORMATION

By ERNEST KOIS Ernest Kois
Title VP SALES
Company KOIS BROTHERS EQUIPMENT Co, INC.
Date 7-14-21

END: FORM OF PROPOSAL (BID PROPOSAL)

- 1) HEIL DPRR-33 AND PETERBILT 520 \$352,546.00
QUOTE #21-17103
- 2) HEIL DPRR-33 AND MACK LR64R \$354,741.00
QUOTE #21-17102
- 3) HEIL DPRR-33 AND AUTO CAR ACX \$376,319.00
QUOTE #21-17101 13
MEETS ALL SPECIFICATIONS

GENERAL BIDDING GUIDELINES:

If bid specification is met than place a check in the column marked "YES". If it is necessary to bid alternate equipment or to take exceptions to the specifications as set forth, this must be checked as "NO".

The Basis of Award shall be dependent on the most responsible bid submitted. Consideration will be given to cash flow, purchase price, delivery dates, equipment service guarantees, parts and service availability, parts and service location, analyses and comparison of equipment specification details, and any other items of concern to the City of Laurel.

The purchaser reserves the right to reject any or all bids, to waive any informality in bids, or to accept in whole or part such a bid as may be in the best interest of the City of Laurel.

The purchaser also reserves the right to reject the vehicle at the time of final inspection if the vehicle does not meet any and/or all requirements of the final contract according to the personnel acting on behalf of the department at the time of final inspection. These requirements include, but are not limited to: performance, workmanship, service, quality and operation of the vehicle.

Please state the estimated delivery time after receipt of order in days: 120 Days for Chassis

CHASSIS SPECIFICATION

MARK YES OR NO IF
COMPLIANT OR NOT

<u>ITEM DESCRIPTION</u>	YES	NO
SINGLE RIGHT HAND DRIVE STEEL CAB	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CUMMINS 350HP ISX12 1450 FT-LB TORQUE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 POSITION C BRAKE BY JACOBS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AUDIBLE & VISUAL ALARM/LOP, HT, LWL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RACOR 412R10 FILTER W/H2O PROBE & 12V ELEC HEAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PHILLIPS 120V 1500W BLOCK HEATER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HEATER RECEPTACLE LOCATED IN RH CAB STEPS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1300 SQ. IN. SOLID ALUMINUM RADIATOR (NO PLASTIC TANK ENDS)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2-SPEED ENGINE FAN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EXTENDED LIFT COOLANT	<input checked="" type="checkbox"/>	<input type="checkbox"/>
STEEL COOLANT SUGE TANK W/SIGHT GLASS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16" TWO STAGE AIR CLEANER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BLACK, HOOD TYPE ENGINE AIR INTAKE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HORZ DPF W/LH VERTICLE SCR	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PF & SCR SHIELDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VERTICLE SINGLE EXHAUST DIFFUSER STAINLESS STEEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OVER-FENDER MTD., RH SIDE, 10-GAL CAPACITY UREA TANK	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ALUM TURBO/EXHAUST PIPE DEBRIS SHIELD	<input checked="" type="checkbox"/>	<input type="checkbox"/>

380 H.P.

LH side

RADIO SHUT-OFF IN REVERSE		<input checked="" type="checkbox"/>	
DRY TYPE ABC 5LB CAP MTD. IN CAB UNDER SEAT		<input checked="" type="checkbox"/>	
22.5 X 9" STEEL HP, 5.25" INSET, 5HH FRONT WHEELS		<input checked="" type="checkbox"/>	
MICHELIN 315/80R22 XZY - 3 FRONT TIRES	PROVIDE BY KOTS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No Spare
22.5 X 8.25" STEEL HP, 5HH REAR WHEELS		<input checked="" type="checkbox"/>	
MICHELIN 11R22.5H X DE M/S REAR TIRES		<input checked="" type="checkbox"/>	
22.5 X 8.25" STEEL, HP, 6.18" INSET, 5HH TAG AXLE WHEELS		<input checked="" type="checkbox"/>	
MICHELIN 11R22.5H XZY-3 TAG AXLE TIRES	PROVIDE BY KOTS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> No Spare
STANDARD WHITE DPSS-N0007EX CAB PAINT		<input checked="" type="checkbox"/>	
1 YEAR CHASSIS WARRANTY		<input checked="" type="checkbox"/>	
5 YEAR EXTENDED ALLISON TRANSMISSION WARRANTY		<input checked="" type="checkbox"/>	
5YRS/300K MILE EXTENDED CUMMINS WARRANTY PP2		<input checked="" type="checkbox"/>	
5YR/300K MILE EXTENDED CUMMINS AFTERTREATMENT WARRANTY		<input checked="" type="checkbox"/>	
DATALINK ADAPTOR TO HOOK TO CHASIS		<input checked="" type="checkbox"/>	
CUMMINS SOFTWARE FOR READING CODES		<input checked="" type="checkbox"/>	
BEMDIX SOFTWARE FOR READING CODES		<input checked="" type="checkbox"/>	
OEM TECHNICAL CALL CENTER FOR CUNTOMER AVAILABLE 24/7		<input checked="" type="checkbox"/>	
MADE IN THE USA		<input checked="" type="checkbox"/>	

Automated Side Loader Refuse Compactor

INTENT:

These specifications describe a refuse collection body equipment with a mechanical device designed to handle a variety of plastic refuse containers (or specify sizes and types of containers to be handled). The body shall be capable of compacting and transporting refuse to a landfill or transfer station and unloading the load by means of hydraulically raising the tailgate and then ejecting the refuse without raising the body.

GENERAL TERMS:

All equipment furnished under this contact shall be new, unused and the same as the manufacture's current production model. Accessories not specifically mentioned herein, but necessary to furnish a complete unit ready for use, shall also be included. Unit shall conform to the best practice known to the body trade in design, quality of material and workmanship. Assemblies and component parts shall be standard and interchangeable throughout the entire quantity of the units as specified in this invitation to bid. The equipment furnished shall conform to current ANSI Safety Standard Z 245.1.

The bidder shall complete every space in the Bidders Proposal column with check mark to indicate if the item being bid is exactly as specified. If any check marks are placed in the "NO" column, a detailed and complete description of the deviation from specification must be supplied on a separate sheet labeled "Deviations from Specification".

KOIS EQUIPMENT COMPANY INC.

DENVER
 5200 Colorado Blvd.
 Commerce City, CO 80022
 Phone: 303-298-7370
 Fax: 303-298-8527

BILLINGS
 2107 Harnish Blvd.
 Billings, MT 59101
 Phone: 406-652-3975
 Fax: 406-652-3744

GREAT FALLS
 1610 River Drive North
 Great Falls, MT 59401
 Phone: 406-452-2757
 Fax: 406-452-2799

DATE 07/14/21 PAGE 1
 QUOTE NO. 21-17101
 *** QUOTE ***

SOLD TO:
 CITY OF LAUREL
 2021 NEW REFUSE TRUCK 7-15-21
 P.O. BOX 10
 LAUREL MT 59044

SHIP TO:
 CITY OF LAUREL
 2021 NEW REFUSE TRUCK 7-15-21
 P.O. BOX 10
 LAUREL MT 59044

CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
BID/QUOTE	12310	FOB LAUREL	17	NET 10	406-628-7431

Dear Matt,
 We are pleased to present the following quotation:

1) 2022 Heil DPF Rapid Rail 33 yard full eject refuse compactor body with the following features:

- " In-cab electrical pack controls
- " 5.4 cubic yard hopper
- " ICC reflective tape
- " Lift cylinders cushioned up and down with chrome plated rods
- " 3-micron return line filter with magnetic trap and in-cab filter by-pass monitor and magnetic column
- " Mid-body turn signal
- " 96" lift reach
- " In-cab proportional lift, hoist and tailgate controls
- " Center mounted brake light
- " Cortex control
- " Backup alarm
- " 1,600 pound lift capacity rated at 3,200 but set lower
- " Fully automatic Shur-Lock tailgate latches
- " Rear Underride guard - 24" tool box mounted on ICC
- " 3 micron filter and 100-micron suction line strainer
- " Street side access door with step and grab
- " Front MTN or Transmission PTO and Operate at idle pump
- " Load any time" compactor and follower shield design
- " Under hopper liquid sup with 2 clean out doors and steel rake
- " Tailgate service props
- " Customer's choice of finish paint color
- " Underbody oil tank with level/temperature sight gauge, oil suction shut-off and "Y" manifold
- " FMVSS #108 clearance lights and reflectors
- " Rear anti-spray mud flaps

*** CONTINUED NEXT PAGE ***

KOIS EQUIPMENT COMPANY INC.

BROTHERS

DENVER
5200 Colorado Blvd.
Commerce City, CO 80022
Phone: 303-298-7370
Fax: 303-298-8527

BILLINGS
2107 Harnish Blvd.
Billings, MT 59101
Phone: 406-652-3975
Fax: 406-652-3744

GREAT FALLS
1610 River Drive North
Great Falls, MT 59401
Phone: 406-452-2757
Fax: 406-452-2799

DATE 07/14/21 PAGE 2
QUOTE NO. 21-17101
*** QUOTE ***

SOLD TO:
CITY OF LAUREL
2021 NEW REFUSE TRUCK 7-15-21
P.O. BOX 10
LAUREL MT 59044

SHIP TO:
CITY OF LAUREL
2021 NEW REFUSE TRUCK 7-15-21
P.O. BOX 10
LAUREL MT 59044

CUSTOMER PO	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
BID/QUOTE	12310	FOB LAUREL	17	NET 10	406-628-7431

" Backup and license plate light
" ANSI Z245.1 compliant
The following optional items are also included in base bid price:
" Joystick lift control plus the extra paddle switches requested
" Smart strobes LED in design plus all lights LED
" 2)LED Work lights - one in hopper area and one in lift arm area
" Universal belt grabbers for 40-450 gallon refuse barrels
" Full factory installation

Sincerely,

Roy Pilcher 406-403-5321 Mobile

PART NUMBER	DESCRIPTION	QTY	ORD	UOM
AUTOCAR 2022 ACX	*CABOVER TRUCK PER ATTACHED SP	1.00		EA
DP RAPID RAIL	*33 YD AUTOMATED FULL EJECT BO	1.00		EA
FULL FACTORY MOUNT	*INSTALLATION OF UNIT FT. PAYN	1.00		EA
UNIVERSAL STANDARD	*BELT GRABBERS 30-450 GAL GRAB	1.00		EA
OIGAI TRANSMISSION	*PTO/PUMP OPERATE @ IDLE OPRS.	1.00		EA
HOPPER AND LIFT WORK	*LED LIGHTS	1.00		EA
MULTI FUNCTION	*STROBE/TURN LAMPS LED LIGHTS	1.00		EA
REMOTE LIFT CONTROLS	*MOUNTED UNDER SEAT DRIVERS SI	1.00		EA
PADDLE SWITCH/JOYSTI	*RR STL. CONT JOYSTICK & SWITC	1.00		EA
HOPPER FLOOR LINER	*3/16" AR PLATE EXCEED SPECS	1.00		EA

*** CONTINUED NEXT PAGE ***

KOIS EQUIPMENT COMPANY INC.

DENVER
5200 Colorado Blvd.
Commerce City, CO 80022
Phone: 303-298-7370
Fax: 303-298-8527

BILLINGS
2107 Harnish Blvd.
Billings, MT 59101
Phone: 406-652-3975
Fax: 406-652-3744

GREAT FALLS
1610 River Drive North
Great Falls, MT 59401
Phone: 406-452-2757
Fax: 406-452-2799

DATE 07/14/21 PAGE 3
QUOTE NO. 21-17101
*** QUOTE ***

SOLD TO:
CITY OF LAUREL
2021 NEW REFUSE TRUCK 7-15-21
P.O. BOX 10
LAUREL MT 59044

SHIP TO:
CITY OF LAUREL
2021 NEW REFUSE TRUCK 7-15-21
P.O. BOX 10
LAUREL MT 59044

CUSTOMER PO BID/QUOTE	CUSTOMER NUM	SHIP VIA	SALESMAN	TERMS	CUSTOMER PHONE
	12310	FOB LAUREL	17	NET 10	406-628-7431

PART NUMBER	DESCRIPTION	QTY	ORD	UOM
STEEL MUD GUARDS	*AHEAD & BEHIND REAR TANDEMS	1.00		EA
MAN HOPPER COVER	*STD MESH EXT HANDLE LANDFL DR	1.00		EA
FENDER EXT KIT	*BRUSH GUARDS PROTECT BODY MUD	1.00		EA
INF SERIES EJECT	*CYLS W/ SCRAPERS 2 YEAR EXTRA	1.00		EA
3 YR COMPLETE BODY	*COVERS ALL REQUESTED BODY/ARM	1.00		EA
STRUCTURAL 5 YEAR	*WARRANTY ADDITIONAL COVERAGE	1.00		EA
STEEL SURCHARGE	*15% BASED ON STEEL PRICES CUR	1.00		EA
KOIS DISCOUNT GIVEN	*MUNICIPAL DISCOUNT GIVEN HEIL	-1.00		EA

All returned goods must be accompanied by invoice and are subject to handling charge after 30 days.

NO RETURNS AFTER 90 DAYS

A SERVICE CHARGE OF 2% PER MONTH, 24% PER ANNUM WILL BE ADDED TO ANY INVOICE NOT PAID BY THE LAST DAY OF THE MONTH IN WHICH IT IS DUE. WE ARE CONFORMING WITH THE FAIR LABOR STANDARDS ACT OF 1938 AS AMENDED. NOT RESPONSIBLE FOR TIMELOST DUE TO FIRES, STRIKES OR CAUSES BEYOND OUR CONTROL. STENOGRAPHICAL AND CLERICAL ERRORS SUBJECT TO CORRECTION

THANK YOU FOR ALLOWING US TO QUOTE THESE ITEMS. YOUR COST IS

Sub Total	371,006.50
Sales Tax	0.00
F.E.T.	0.00
Freight	5,312.50
TOTAL	376,319.00



ACX64 Class 8 Model Year 2022

Jack's Truck & Equipment, Inc.
NA

Prepared By : Richard Chafee
rchafee@floydstrucks.com

Prepared For : MATT WALKER
CITY OF LAUREL

Monday, July 12, 2021 3:54:12 PM EST

07/12/2021

Chassis Specification

		Description	Front Weight	Rear Weight	Price	
AUTOCAR TRUCKS						
O	ENG0001	ENGINEERING GROUP IDENTIFIER	AUTOCAR ENGINEERING	0	0	0
S	0040002	MODELS	ACX64	10,431	6,154	197,350
O	5000002	CAB SHELL	SINGLE RIGHT HAND DRIVE CAB	0	0	490
O	100U001	CUSTOMER TYPE	MUNICIPAL	0	0	0
VEHICLE ADAPTATION						
S	114010	COUNTRY OF USE	UNITED STATES STD MARKET ADAPTATION	0	0	0
SOLUTION						
O	C04001	BODY COMPANY	HEIL	0	0	0
O	C02004	BODY TYPE	AUTOMATED SIDE LOADER	0	0	0
S	C070001	FUEL SYSTEM TYPE	DIESEL	0	0	0
O	C001056	TRUCK TYPE (WRENCH CODE)	ASL, HEIL, WB 195, TAG@76, DIESEL, WITH EJECT	0	0	0
O	C06107	BODY STYLE	HEIL DURA PACK PYTHON	0	0	0
O	C05033	TOTAL BODY CAPACITY - BODY/HOPPER	33 YARD	0	0	0
O	C090004	AXLE QUANTITY	4 AXLE	0	0	0
S	C080001	REAR SUSPENSION TYPE	STD/BEAM TYPE REAR SUSPENSION	0	0	0
O	C01003	APPLICATION	REFUSE - LANDFILL	0	0	0
O	C11005	BODY COMPANY SERVICE OPTION	CONTAINER EJECT	0	0	0
O	C03002	TERRITORY	WEST COAST	0	0	0
O	D010200	FRONT GAWR	20000 LBS	0	0	0
O	D020460	REAR GAWR	46000 LBS	0	0	0
O	D030132	TAG AXLE GAWR	13200 LBS	0	0	0
O	D100768	GVWR	76800 LBS (PARK BRAKE LIMITED)	0	0	0
ENGINE						
S	1580001	ENGINE VOCATION	COMMERCIAL - DOMESTIC (DOT)	0	0	0
O	1012023	ENGINE ASSY	X12 '21 380HP / 2000 RPM / 1450 LB-FT, CUMMINS	0	0	15,930
S	4460001	FUEL TYPE	ULTRA-LOW SULPHUR DIESEL FUEL REQUIRED	0	0	0

S	972A001	SPECIAL EMISSION CERTIFICATION LABELS	50 STATE - CALIFORNIA CLEAN IDLE CERTIFIED (DIESEL)	0	0	0
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ENGINE EQUIP

O	1222001	PTO-ENGINE FRONT	FEPTO ADAPTER (4.25" BCD with 2" FEM PILOTED FLANGE YOKE - 7/16-20 BOLTS)	40	-9	590
S	128071	ENGINE CONTROL SPECIFICATIONS	DEFAULT SPECS	0	0	0
S	1290004	ENGINE ELECTRONICS	CUMMINS 500K COMMUNICATION	0	0	0
O	1310002	BRAKE-ENGINE	C BRAKE BY JACOBS 2 POSITION FOR X ENGINES	80	10	2,500
O	4382004	FILTER-FUEL, CHASSIS MOUNTED	DAVCO 386 FILTER W/O 12V HEAT, WITH H2O PROBE	0	0	105
O	170025	FILTER-FUEL, ENGINE MOUNTED	CUMMINS SPIN-ON FILTER	-5	0	0
O	180021	ENGINE BLOCK HEATER	PHILLIPS 120V 1500W	5	0	115
O	1810003	HEATER RECEPTICAL LOCATION-ENGINE	RECEPTACLE LOCATED AT CAB STEPS, RH SIDE	0	0	0
S	2080001	FAN & DRIVE-ENGINE	2-SPEED FAN	0	0	0
S	2120003	RADIATOR SURGE TANK	STANDARD SURGE TANK W/ SIGHT GLASS	0	0	0
O	220052	AIR CLEANER	16" TWO STAGE	28	3	305
S	226001	AIR INTAKE RAIN CAP	BLACK, HOOD TYPE	0	0	0
O	2302001	MUFFLER SYSTEM	LH VERT HORIZ DPF/SCR	0	0	0
S	2310003	EXHAUST SHIELDS	DPF & SCR SHIELDS	0	0	0
O	2320011	EXHAUST STACKS	STAINLESS STEEL STACK W/TURN OUT	0	0	0
S	115A200	TURBO HEAT SHIELD	TURBO HEAT SHIELD	0	0	0
S	2390002	UREA DELIVERY SYSTEM	OVER-FENDER MTD., LH SIDE, 10 GAL. CAPACITY	0	0	0
S	5300001	ENGINE/EXHAUST COVER	ALUM TURBO/EXHAUST PIPE DEBRIS SHIELD	0	0	0
O	7002000	AIR COMPRESSOR	CUMMINS WABCO 25.9 CFM COMPRESSOR	0	0	0
S	8200003	STARTING MOTOR	DELCO REMY 12V 39 MT W/OCF	0	0	0
O	8020005	ALTERNATOR	DELCO REMY 180 AMP, 28SI PAD MTD.	5	0	50
O	P020010	ENGINE IDLE SHUT DOWN	ENGINE IDLE SHUTDOWN ENABLED (10 MINUTES)	0	0	0
S	P030001	CRUISE CONTROL PARAMETER	CRUISE CONTROL ENABLED	0	0	0
S	P630006	MAX VEHICLE SPEED - PTO MODE	MAX VEHICLE SPEED IN PTO MODE = 6 MPH	0	0	0
S	P641200	RPM PTO MODE	1200 RPM MAX IN PTO	0	0	0

S	P701200	PTO SET SWITCH	PTO SET SWITCH = 1200 RPM	0	0	0
S	P711000	PTO RESUME SWITCH	PTO RESUME SWITCH = 1000 RPM	0	0	0
O	P010064	VEHICLE GOVERNED SPEED LIMIT	SPEED LIMIT 64 MPH (LIMITED BY PROP SHAFT CALCS)	0	0	0

TRANSMISSION

S	2580003	VOCATION	RDS REFUSE - VOC 400-XXX	0	0	0
O	2690019	CONTROL MODULE (ELECT)	REFUSE W/ AUTO-NEUTRAL & SERVICE BRAKE, VP170	0	0	0
S	26A0001	TRANSMISSION SHIFT SCHEDULE / FUEL SENSE	PRIMARY PERFORMANCE / SECONDARY ECONOMY	0	0	0
S	PT10001	TRANS DIRECTION CHANGE SHIFT INHIBIT	SHIFT INHIBIT ENABLED	0	0	0
S	27P0000	TRANSMISSION RETARDER AUDIBLE ALARM	NO TRANSMISSION RETARDER AUDIBLE ALARM	0	0	0
O	2700028	TRANSMISSION	ALLISON 4500 SERIES,6-SPEED	384	59	13,845
S	287A200	TRANSMISSION BREATHER	TRANSMISSION REMOTE BREATHER	0	0	0
S	284016	TRANSMISSION CONTROLS	ALLISON PUSHBUTTON CONTROLS	0	0	0
S	286005	COOLER-TRANSMISSION OIL	OIL TO WATER TYPE	0	0	0
S	290003	TRANSMISSION OIL FILL/CHECK	OIL FILL TUBE / DIPSTICK W/ LEVEL SENSOR	0	0	0
O	300013	DRIVESHAFT-MAIN	SPICER 1810HD HALF ROUND	5	10	70
O	3170007	PTO-TRANSMISSION MOUNTED	CHELSEA 890 / 897 PTO CLEARANCE (PREP ONLY)	5	0	110

FRONT AXLE

S	3700002	FRONT AXLE	MERITOR MFS-20 STEER AXLE, 20000# CAPACITY	0	0	0
S	3690005	FRONT AXLE POSITION	52.5 INCHES	0	0	0
O	3710003	FRONT SUSPENSION	10200 LB TAPER LEAF REDUCED RIDE HEIGHT, 22000 LB GROUND CAPACITY	-90	5	0
O	371T01	SUSPENSION, FRONT AUX	AUX LOAD CUSHION	10	0	50
S	373002	SHOCK ABSORBERS-FRONT	DOUBLE ACTING SINGLE - HEAVY DUTY	0	0	0
S	904011	HUBS-FRONT	STEEL HUB PILOTED,285MM BOLT CIRCLE	0	0	0
S	9400001	WHEEL OIL SEALS-FRONT	SCOTSEAL PLUS XL	0	0	0
S	9210001	HUB CAPS - FRONT AXLE	CR ZYTEL HUBCAP	0	0	0
S	374002	FRONT AXLE LUBRICANT	SYNTHETIC,DANA SPICER EP75W90,OR EQUIV	0	0	0

S	751003	BRAKES-FOUNDATION, FRONT AXLE	MERITOR 16.5X6 QP	0	0	0
S	754009	BRAKE SLACK ADJUSTERS -FRONT AXLE	MERITOR AUTOMATIC	0	0	0
S	755001	DUST SHIELDS - FRT BRAKES	DUST SHIELDS - FRONT BRAKES	0	0	0
S	901001	BRAKE DRUM-FRONT	CAST IRON	0	0	0
O	383107	STEERING GEAR	INTEGRAL POWER STEERING W/LEFT HAND RAM	0	0	0
S	387003	POWER STEERING RESERVOIR	FOUR QUART REMOTE MOUNTED	0	0	0

REAR AXLE

O	330444	REAR DRIVE AXLE-SINGLE & TANDEM	MERITOR RT46-160 46,000 LB	0	430	3,002
S	330U98	REAR AXLE LUBE PUMP	NO LUBRICATION PUMP	0	0	0
O	331563	REAR DRIVE AXLE RATIO	5.63	0	0	0
O	333014	REAR DRIVE AXLE ANTI- SPIN DEVICES	FOUR WHEEL LOCK	0	63	1,070
O	3500004	REAR SUSPENSION	HENDRICKSON HMX-460 SUSP @ 54" AS	0	0	715
S	351013	REAR SUSPENSION BEAMS	54 INCH STEEL RUBBER BUSHED	0	0	0
S	358005	TORQUE RODS	LONGITUDINAL & TRANSVERSE - RUBBER BUSHED	0	0	0
O	359001	SHOCK ABSORBERS-REAR	4 SHOCK ABSORBERS HENDRICKSON SUSPENSION	0	31	202
S	9130001	HUBS-REAR	IRON HUB, HP 10 STUD	0	0	0
S	3400001	REAR AXLE BREATHER	STANDARD AXLE BREATHER	0	0	0
S	9410001	WHEEL OIL SEALS-REAR	SCOTSEAL PLUS XL	0	0	0
S	7610003	BRAKES-FOUNDATION, REAR AXLE	MERITOR 16.5X7 Q PLUS	0	0	0
S	764013	BRAKE SLACK ADJUSTERS -REAR AXLE	MERITOR AUTOMATIC,TANDEM AXLE	0	0	0
S	765001	DUST SHIELDS - REAR BRAKES	DUST SHIELDS - REAR BRAKES	0	0	0
S	781012	BRAKE CHAMBERS- PARKING, TYPE/VENDOR	CAM TYPE MGM STOPGARD (4)	0	0	0
S	910001	BRAKE DRUM-REAR	CAST IRON	0	0	0

AUXILIARY AXLES

O	3T12002	TAG AXLE #1	HENDRICKSON COMPOSITILITE EXS STEERABLE TAG, 13500 LBS CAPACITY	-167	821	9,185
O	3T1F001	TAG AXLE BRACKET	ALTERNATE TAG AXLE BRACKET	0	0	0
O	3TS0049	TAG AXLE #1 SPACING	49" SPREAD	0	0	0

O	9T10001	TAG AXLE HUBS	STEEL HUBS, 11.25" BOLT CIRCLE	0	0	0
O	9T60001	TAG AXLE WHEEL SEALS	SCOTSEAL PLUS XL	0	0	0
O	9T80001	TAG AXLE HUB CAPS	CR ZYTEL HUB CAPS	0	0	0
O	7T20004	TAG AXLE BRAKES	HENDRICKSON INTEGRAL 15X4	0	0	0
O	7T40001	TAG SLACK ADJUSTER	XXXX MERITOR AUTOMATIC	0	0	0

BRAKES

S	729002	AIR LINES-PARKING BRAKE, CHASSIS	AIR LINES CHASSIS PARK BRAKE	0	0	0
S	7410004	BRAKE CONTROL SYSTEM	MERITOR WABCO ABS 4S/4M W/PLC	0	0	0

CHASSIS

O	400195	WHEELBASE	195 INCHES	-22	-27	-75
O	402098	FRAME-REAR OVERHANG	98"	10	-32	0
S	403012	FRAME RAILS	3/8" VARIABLE DROP STEEL, EXT B	0	0	0
O	4090001	FRAME CROSSMEMBER-CENTER	7-PIECE STEEL W/ ALUM BOC X-MEMBER ORIENTATION B	22	118	0
O	411012	FRAME CROSSMEMBER-END CLOSING	STEEL CHANNEL MEMBER-IF REQUIRED	0	0	0
S	460001	BUMPER-FRONT	STEEL PAINTED	0	0	0
O	4682000	GUARD-OIL PAN	ENGINE OIL PAN GUARD - STEEL	0	0	181
S	480002	TOWING DEVICE-FRONT	TWO REMOVABLE TOW PINS	0	0	0
S	8742000	WIRING, BODY INTERFACE	RP 170 COMPLIANT	0	0	0
S	430020	FUEL TANK-LEFT	75 GAL 26" DIA UNPAINTED ALUMINUM	0	0	0
O	430R001	FUEL TANK FILL LHS	REAR FILL FUEL TANK, LHS	0	0	0
O	4470004	LH FUEL TANK SPACERS	LH FUEL TANK SPACED 2", DROPPED 4"	7	5	162
S	432002	FUEL TANK STRAP/SUPPORT LEFT	PAINTED STEEL, LH	0	0	0
O	4280003	DRILLING FUEL TK SUPT-LEFT	FUEL TANK LHS LOCATION - SPEC DRIVEN	0	0	0
S	436015	FUEL LINES	SAE J1402A1 WIRE BRAIDED	0	0	0
S	8120005	BATTERY BOX	STEEL BOX, 3 BATTERY, LHS	0	0	0
O	8160011	BATTERY BOX SPACERS	BATTERY BOX SPACED 2", DROPPED 2" ON SPACERS WITH SPACERS DROPPED ADDITIONAL 2"	7	2	48
O	8090003	BATTERY BOX DRILLING	BATTERY BOX LOCATION - SPEC DRIVEN	0	0	0
S	810089	BATTERY	3 JOHNSON CONTROL 31ECL 12V 2250CCA	0	0	0

S	8140002	BATTERY SHUT-OFF SWITCH	SHUTOFF W/ LOCKOUT, NO EMERGENCY JUMPER STUDS	0	0	0
S	7110001	AIR TANK-BRAKE	STEEL AIR TANKS	0	0	0
O	7090003	AIR TANK DRILLING	AIR TANKS LOCATION SPEC DRIVEN	0	0	0
O	7152001	WET TANK DRAIN	WABCO DV-2 AUTOMATIC W/ HEATER	0	0	100
O	715T003	AIR RESERVOIR DRAIN SYSTEM	CENTRAL MANIFOLD W/ PETCOCKS	2	2	70
O	713023	AIR DRYER	BENDIX ADIP W/HEAT	0	0	15
O	7100008	AIR DRYER DRILLING	AIR DRYER MTD OUTSIDE RAIL, RHS, SPEC DRIVEN	0	0	0
S	724001	AIR LINES-CAB	SAE J844 NYLON TUBING	0	0	0

CAB EXTERIOR

O	4510005	STEP-CAB ACCESS, CAB MOUNTED	SINGLE SELF CLEANING CAB ENTRANCE STEP	-6	0	-160
S	502001	CAB DOORS	STEEL	0	0	0
O	5120001	POWER WINDOWS	DUAL INTERNAL REGULATOR POWER WINDOWS	4	0	750
O	6220018	MIRRORS-DUAL WEST COAST	MIRROR, BLACK, HTD, REMOTE, W / MARKER LIGHT, W / LWR HTD CONVEX	0	0	620
S	630026	HORN-AIR	TWIN MOUNTED UNDER CAB	0	0	0
S	631001	HORN-ELECTRIC	SINGLE	0	0	0
O	661002	CAB TILT MECHANISM-C.O.E.	HYDRAULIC TILT WITH AIR ASSIST	20	0	285
S	6720001	GRILLE	AUTOCAR GRILLE	0	0	0
S	675001	BUG SCREENS	BUG SCREEN MOUNTED BEHIND GRILLE	0	0	0

CAB INTERIOR

S	3800001	STEERING WHEEL	16" DIA. WHEEL, 2 SPOKE	0	0	0
S	3810002	STEERING COLUMN	TILT AND TELESCOPIC STEERING COLUMN	0	0	0
O	5202002	SEAT-DRIVER	SEARS C2+ SEAT, AIR RIDE, AIR LUMBAR	0	0	100
O	5212001	SEAT-PASSENGER	SEARS C2+ SEAT, FIXED	0	0	125
S	5222000	SEAT BELTS-DRIVER	THREE POINT RETRACTABLE, W/O COMFORT LATCH	0	0	0
S	5232000	SEAT BELTS-PASSENGER	THREE POINT RETRACTABLE, W/O COMFORT LATCH	0	0	0
O	5260002	SEAT INSERT	MODURA, ASPHALT COLOR	0	0	0
O	538004	CARPET & MAT	ALUMINUM DIAMOND PLATE - DRIVER SIDE	4	2	70

S	550001	CENTER CONSOLE	CENTER CONSOLE	0	0	0
S	5510001	REAR CONSOLE	REAR CONSOLE	0	0	0
S	5930001	ASH TRAY	ASHTRAY MTD IN CONSOLE	0	0	0

CAB CLIMATE CONTROL

O	0602003	CAB TEMPERATURE SYSTEM	INTEGRAL A/C WITH ROOF MOUNT CONDENSER (GHG)	0	0	2,250
O	612002	AIR CONDITIONER CONDENSER	ROOF MTD. (DISTRIBUTOR RESPONSIBILITY TO ENSURE CLEARANCE WITH FEL CANOPY)	0	0	0

GAUGES & INSTRUMENTATION

S	0572001	INSTRUMENTS SALES PKG	ADVANCED DIAGNOSTIC DISPLAY - V1	0	0	0
S	1430001	TRUCK ELECTRICAL CONTROL MODULE	VEHICLE CONTROL UNIT	0	0	0
S	1362000	TACHOMETER/RPM TACHOGRAPH	ELECTRONIC TACHOMETER	0	0	0
S	1372000	GAUGE-HOURMETER	HOURMETER INCLUDED IN ON BOARD DISPLAY	0	0	0
S	225009	AIR INTAKE RESTRICTION INDICATOR	GRADUATED, AIR CLEANER MOUNTED	0	0	0
S	4390001	GAUGE-FUEL LEVEL	ELECTRONIC FUEL LEVEL	0	0	0
S	5712003	GAUGE PANELS	ALL GAUGES IMPERIAL	0	0	0
S	1472001	VEHICLE MONITORING SYSTEM	AUTOCAR ADVANCED TELEMATICS - FULL INSTALLATION	0	0	0

LIGHTING

S	8360003	LAMPS-HEAD	LED HEADLAMPS	0	0	0
S	8410002	LAMPS-TURN SIGNAL - FRONT	LED FRONT TURN SIGNALS	0	0	0
S	8510002	LAMPS-MARKER	AMBER LED ROOF MARKERS	0	0	0
S	859001	LAMPS-RUNNING	DAYTIME	0	0	0
S	8700001	CIRCUIT PROTECTION DEVICE	AUTO CIRCUIT BREAKERS	0	0	0

RADIO/MISC

S	509001	KEY & LOCK SETS-IGN/DOORS	DOOR & IGNITION SAME - UNIQUE PER TRUCK	0	0	0
O	5900006	RADIO	AM/FM RADIO, ROOF MOUNTED	13	-4	275
O	59A0002	RADIO MOUNTING LOCATION	RADIO MOUNTED IN RHS HEADLINER	0	0	0
O	5910002	ANTENNA/POWER SUPPLY	ANTENNA - ROOF MOUNTED	0	0	0
O	596005	RADIO SPEAKERS	2 DUAL CONE SPEAKERS	0	0	0
O	962003	FIRE EXTINGUISHER	DRY TYPE ABC 5LB. CAP MTD. IN CAB	2	0	110

FRONT TIRES / WHEELS

O	9310046	TIRE MANUFACTURER & TREAD - FRONT	MICHELIN XZU-S 2 (RATED TO 10K)	0	0	406
S	930469	TIRE SIZE & LOAD RANGE - FRONT	315/80R22.5L	0	0	0
S	9050015	WHEELS-DISC FRONT	22.5X9.0" STEEL, 5.25" INSET, HAYES	0	0	0

REAR TIRES / WHEELS

O	9342007	TIRE MANUFACTURER & TREAD - REAR	MICHELIN X MULTI D	0	0	64
S	933062	TIRE SIZE & LOAD RANGE - REAR	11R22.5H	0	0	0
S	9140014	WHEELS-DISC REAR	22.5X8.25" STEEL, 6.2" INSET, HAYES	0	0	120

AUXILIARY AXLE TIRES

O	9T50001	TAG AXLE TIRE TREAD	MICHELIN XZY-3	0	20	354
O	9T4062	TAG AXLE TIRE SIZE	11R22.5H	0	0	0
O	9T20014	TAG AXLE WHEELS	22.5X8.25" STEEL, 6.2" INSET, HAYES	0	0	0

PAINT

S	950001	CAB PAINT SCHEME	SINGLE COLOR PAINT	0	0	0
S	9550001	CAB PAINT TYPE	STANDARD WHITE	0	0	0
S	9801002	CAB COLOR-FIRST	APPROVED -- DPSS-N0007EX -- STANDARD WHITE N0007	0	0	0
S	9861U1	CHASSIS COLOR	BLACK P3036	0	0	0
S	987949	BUMPER COLOR	SAME AS CHASSIS,UNPAINTED ALUM OR CHROME	0	0	0
S	988401	DISC WHEEL OR RIM COLOR	STEEL, E-COAT WHITE / ALUM-UNPAINTED	0	0	0

ADDITIONAL OPTIONS

S	899002	CHASSIS WARRANTY	STANDARD WARRANTY	0	0	0
O	899A203	TRANSMISSION WARRANTY	ALLISON 5YR. EXT WARRANTY	0	0	1,229
O	899B225	ENGINE WARRANTY	2021 X12 PT1 5YRS/300K MILES TRAVEL OR TOWING EXTENDED WARRANTY PPI MATRIX 266414 - Restrictions apply	0	0	2,300
O	899K222	EXHAUST AFTERTREATMENT EXTENDED WARRANTIES	2021 X12 AT3 5YRS/300K MILES AFTERTREATMENT EXTENDED WARRANTY MATRIX 233813	0	0	875
S	978015	FLOOR PLAN	15 DAYS FLOORING	0	0	0

OTHERS

Q 9722021	CERTIFICATION-EMISSIONS	COMPLIES WITH 2021 U.S. EMISSIONS	0	0	0
SUB TOTALS					
		BASE WEIGHT/PRICE	10,431	6,154	197,350
		FACTORY OPTION WEIGHT/PRICE	363	1,509	59,358
		DISTRIBUTOR OPTION WEIGHT/PRICE	0	0	0
TOTALS					
		TOTAL PRICE (\$)			256,708
		TOTAL WEIGHT (LB)	10,794	7,663	18,457

07/12/2021

GAWR, GVWR & Tire Pressure

GVW Rating – 76,800#			
Front GAWR	20,000#	Rear GAWR	46,000#
Front Suspension	22,000#	Rear Suspension	46,000#
Front Wheels	20,000#	Rear Wheels	59,100#
Front Tire Size And Tread	20,000#	Rear Tire Size And Tread	48,000#
Front Brakes	20,000#	Rear Brakes	52,000#
Front Axle	20,000#	Rear Axle	46,000#
Tag 1 GAWR	13,200#		
Tag 1 Wheels	14,700#		
Tag 1 Tire Size And Tread	13,200#		
Tag 1 Axle	13,500#		
PSI			
Front PSI	130.0	Rear PSI	105.0
Tag 1 PSI	120.0		



ACX64 Class 8 Model Year 2022

Jack's Truck & Equipment, Inc.
NA

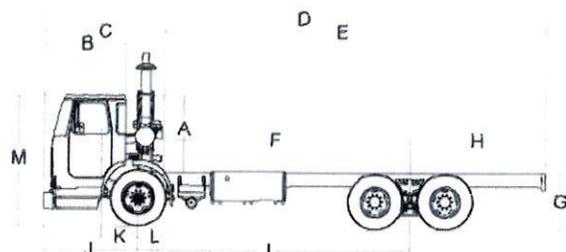
Prepared By : Richard Chafee
rchafee@floydstrucks.com

Prepared For : MATT WALKER
CITY OF LAUREL

Monday, July 12, 2021 3:56:28 PM EST

07/12/2021

Dimensions



	Dimension(ft)	Description
A	59.00	CAB HEIGHT
B	62.00	BUMPER TO BACK OF CAB
C	95.00	EFFECTIVE BUMPER TO BACK OF CAB
D	364.00	OVERALL LENGTH
E	269.00	EFFECTIVE CAB TO END OF FRAME
F	171.00	EFFECTIVE CAB TO REAR AXLE
G	43.20	UNLADEN FRAME HEIGHT
H	98.00	OVERHANG
I	195.00	WHEELBASE
J	71.00	BUMPER TO FRONT AXLE
K	-24.00	DRIVER CENTER OF GRAVITY
L	24.00	EFFECTIVE FRONT AXLE TO BACK
M	102.20	OVERALL HEIGHT
N	0.00	FRONT FRAME EXTENSION

SPECIFICATION SUMMARY

Model	ACX64 Class 8
Engine	X12 '21 380HP / 2000 RPM / 1450 LB-FT, CUMMINS
Transmission	ALLISON 4500 SERIES,6-SPEED
Rear Axle	MERITOR RT46-160 46,000 LB
Rear Axle Ratio	5.63
Rear Tire	11R22.5H

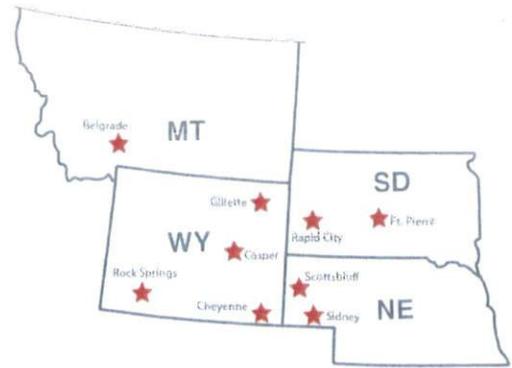
07/12/2021

GAWR, GVWR & Tire Pressure

GVW Rating – 76,800#			
Front GAWR	20,000#	Rear GAWR	46,000#
Front Suspension	22,000#	Rear Suspension	46,000#
Front Wheels	20,000#	Rear Wheels	59,100#
Front Tire Size And Tread	20,000#	Rear Tire Size And Tread	48,000#
Front Brakes	20,000#	Rear Brakes	52,000#
Front Axle	20,000#	Rear Axle	46,000#
Tag 1 GAWR	13,200#		
Tag 1 Wheels	14,700#		
Tag 1 Tire Size And Tread	13,200#		
Tag 1 Axle	13,500#		
PSI			
Front PSI	130.0	Rear PSI	105.0
Tag 1 PSI	120.0		



Nebraska | Wyoming | South Dakota | Montana



Autocar Remote Diagnostics Features Explained:

- *Yes, our trucks not only report fault codes (including engine codes) and warnings on the in-dash display, they are available on our Autocar Advanced Telematics system.*
- *The Autocar system is accessible on any device, including laptops, desktops, smartphones, and tablets (there's even a app dedicated to technicians) and can send email or SMS alerts too.*
- *All the engine information is also shared with Cummins in real-time so a Cummins Call Center will have it – So will our Autocar Solutions team.*
- *Autocar is integrating Cummins Connected Diagnostics and Cummins Software Updates into our own system, so you won't even need a Cummins login or subscription.*
- *All this is included in the price of the truck – no extra charge – for the first few years. Future pricing hasn't been decided but expect it to be similar to a cheap monthly cell phone bill.*
- *Also, any Autocar truck since 2010 (and even Macks, Petes, etc.) can have this Autocar service added – if you're interested let's get a list of trucks and we can quote that next month.*

Manny Perez

Autocar Truck

Regional Sales Manager

2631 Martinez Lane

Riverside, CA 92503

mperez@autocartruck.com

Cell: 765 312-2468



www.autocartruck.com



START



BUILT WITH THE AUTOCAR **POWER OF ONE**

Engineering in lock step as one virtual company

- No disassembly
- No hacking into electrical
- No cab clutter
- No finger pointing
- No delays

Always Up® Dash



- No Distractions mode
- No laptop needed
- On-board diagnostics
- On-board schematics

ADAS & ESC Systems

- Electronic Stability Control (ESC)
- Rollover Stability Control (RSC)
- Advanced Emergency Braking System (AEBS)
- Forward Collision Warning (FCW)
- Stationary Lane Departure Warning (SLDW)
- Blind Spot Detection (BSD)

Vehicle Data Translation & Resolution (VDTR)

- Chassis systems
- Engine systems
- Transmission systems
- Braking systems
- EDGE Processing

FOCUS

Data done right

Adapting technology for refuse



Follow the Always Up® Road



Drivers are happier & safer because:

- They can get in & out easier
- HVAC keep them more comfortable no matter the season
- They have better visibility
- They deal with less clutter & noise
- They receive concise, understandable, real-time information on any truck issues
- They drive with confidence because of collision braking, stability control, & blind spot detection

Technicians are happier because:

- They have on-board diagnostics & schematics
- They have less electrical ghosts
- They have a direct link to virtual hands in help - Autocar Service Team

Ops & owners are happier because:

- There is less risk & less accidents
- There is less employee turnover
- There are less spares
- There is less cost
- And, there is more uptime!

Coming Soon...

- EMP electric cool pack Q3-2020
- Electric automated Q2-2021



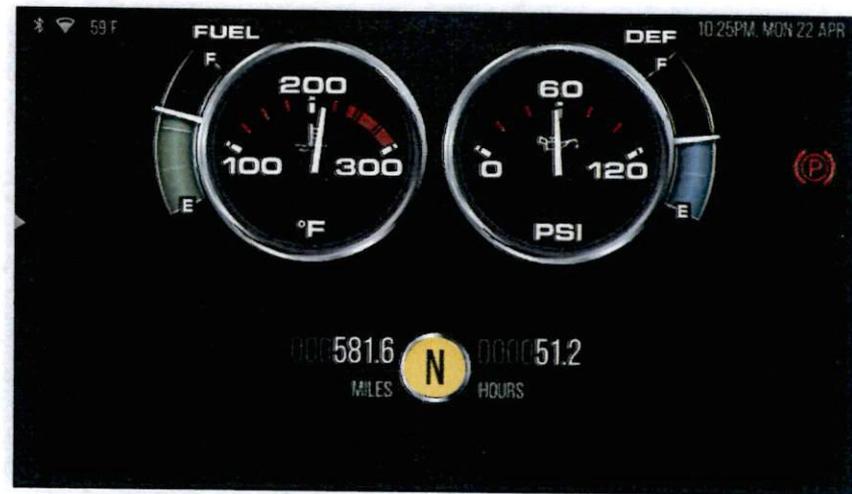


Old dash vs *the always up*[®] digital display

3 inch Display



7 inch Display



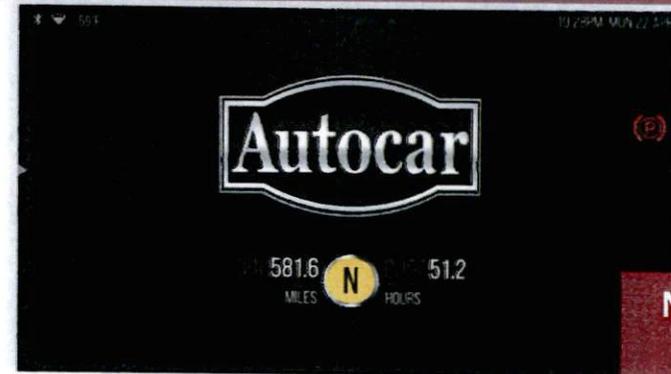
Proprietary & Confidential



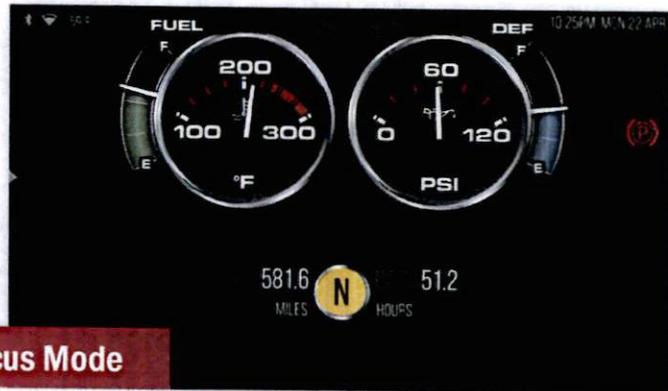
the always up[®] digital display: Benefits

Select Your preferred level of information

The Always Up[®] Digital Display minimizes distraction by only displaying the gauges and information the driver needs.



No Distractions Mode



Focus Mode



Custom Mode



the always up[®] digital display: Benefits

Multi-tier Level
warning system:
Prevents truck down
scenarios
Pre-emptively make driver aware
of changing conditions on the
truck before it becomes critical.



TAKE ACTION



**Something
Worth
Noticing**



**TAKE CRITICAL
ACTION**

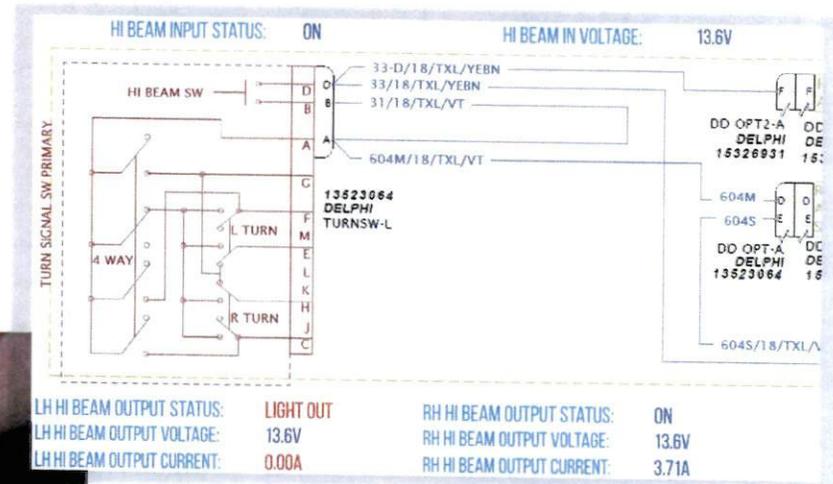


the always up[®] digital display: Benefits

One touch diagnostics provided for the top faults



Proprietary & Confidential

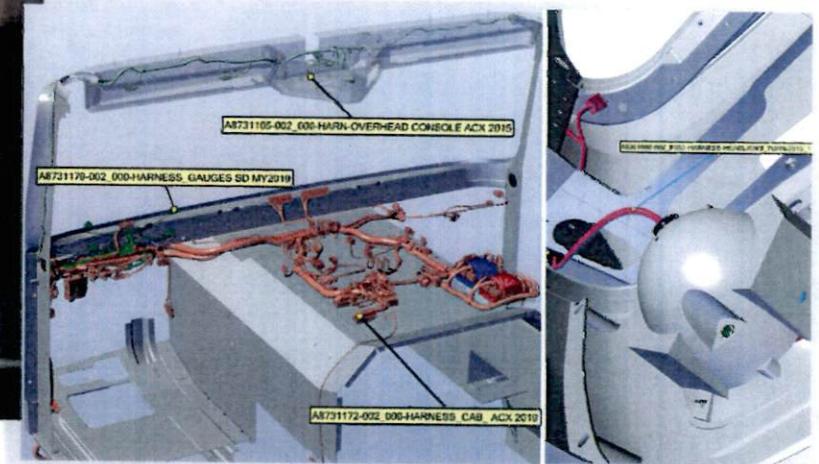
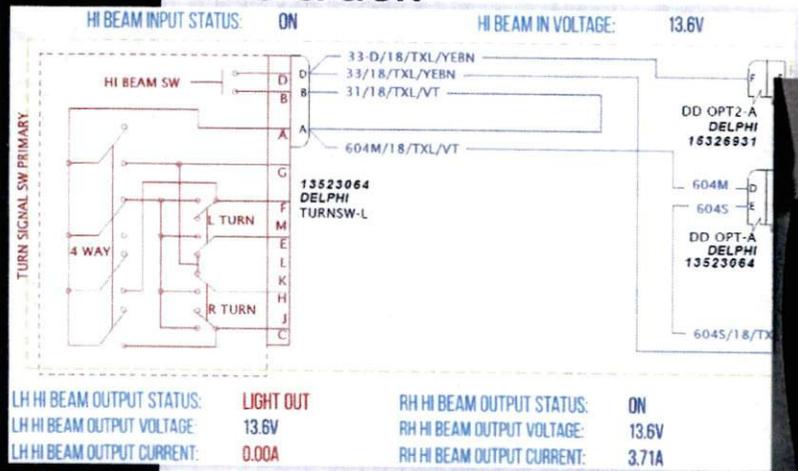


Displays The data and schematic for the problem on your truck



the always up[®] digital display

One More touch shows where the parts are in the truck



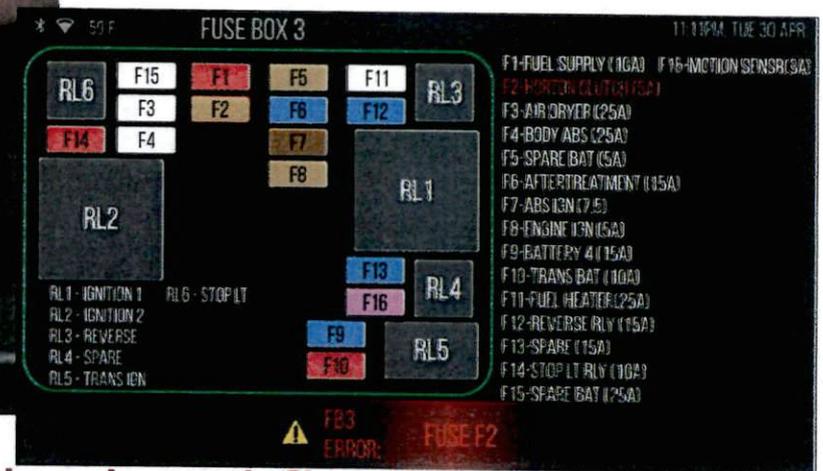
Displays The 3D layout for the problem on your truck

Proprietary & Confidential



the always up[®] digital display

Smart fuse boxes show you fuse and relay faults live!



Fuse with Fault described and flashes

Proprietary & Confidential



the always up[®] Bottom line

- Increasing demand in truck functionality and productivity has increased electrical design complexity. Emission standards, safety features and vehicle monitoring systems all contribute to the overall truck complexity
- With Autocar “One Touch” guided diagnostics, fault finding can be reduced by up to 95%
- Let us handle the truck. With “No Distraction” and “Speed” mode, accompanied by our onboard notification and diagnostic system we will keep your driver more focused on the job and less focused on the truck. Technicians will reduce fault finding time and start fixing the problem sooner.

NO TIME TO WASTE!



Autocar[®] ACX[®]

Severe-Duty Refuse Truck



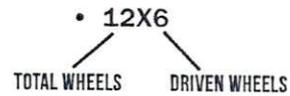
Autocar
Always Up

Chassis Configurations

Autocar's pre-engineered chassis with multiple layout offerings provide custom-designed tools for any application. Auxiliary axle options are available for your desired configuration.

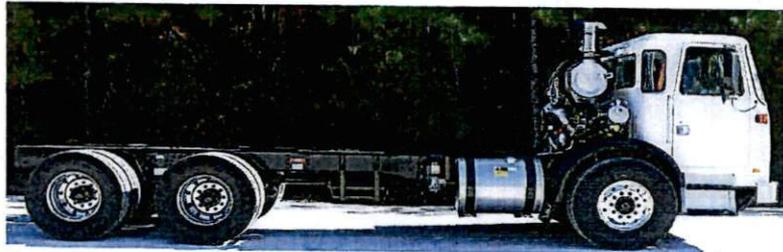
Chassis

- 4X2
- 8X4
- 10X4
- 6X4
- 8X6
- 10X6

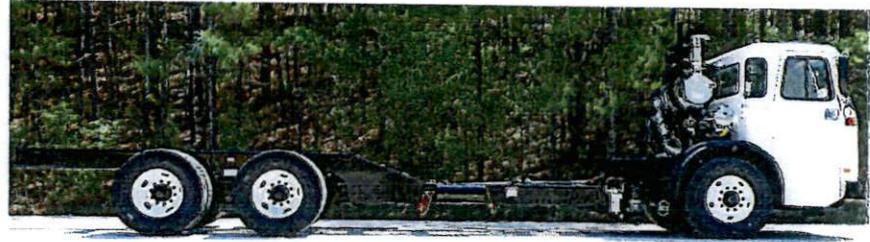


Frame Rails

- Straight
- Drop Frame



ACX 6X4 STRAIGHT FRAME



ACX 6X4 DROP FRAME



ACX 12X6 STRAIGHT FRAME

Door Configurations

Autocar's purpose-built products create an operator-focused cab environment that promotes driver productivity, and comfort. Available in Right-hand Stand-up (RHS) and Standard door layouts and four different driving options. RHS door offers superior driver visibility because of its narrow width and ability to fold directly against the cab eliminating the blind spot present on competitor door layouts.



ACX RIGHT-HAND STAND-UP DOOR



- WIDE GRAB HANDLES**
strategically placed as a result of vigorous driver testing
- BROAD CAB ENTRY**
custom standards allow a generous amount of space to support the driver's ingress and egress
- ADJUSTABLE SEAT**
enables the driver to choose their level of comfort
- LOW ENTRY STEP**
designed for accessibility for ease of entry and exit

Galvannealed Steel Cab

Visibility, comfort, and durability make the ACX cab the preferred severe-duty workspace in refuse. Autocar offers a severe service cab with all-welded steel construction for strength, weight savings, and driver safety.

DOOR HINGE FASTENERS
automotive door hinge system on standard doors has no visible exterior hinge to rust or freeze in inclement weather



INGRESS AND EGRESS
lower step height, closer to ground level, reduces driver fatigue for routes with multiple enters and exits

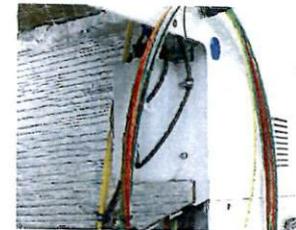
QUICK-CHANGE GRILLE
takes less time to maintain the cool pack and allows for significant clearance for front end POT



ALL STEEL CAB
is more robust than aluminum featuring two-sided galvanized steel. Its rivetless construction requires less maintenance

CAB GUARD
bars around windshield and top of cab are present on residential and commercial front end loaders to protect from canister

BREAKAWAY LED TURN SIGNALS
turn signals extend outward for additional visibility, and LED light offers greater energy efficiency than halogen



INSULATION OVER ENGINE
prevents engine heat from entering the cab in hot weather

Roomiest Cab Available

Greatest comfort for drivers of all sizes. 1 to 1.5 inches of extra hip space and 1.15 to 1.75 inches of extra lateral foot space. Autocar leads in overall operator space in comparison to competitors.

INSULATED CAB

tested to keep drivers comfortable in extreme cold and heat - up to 120 degrees, and lower interior noise

7" SMART DASH DISPLAY

engineered to minimize driver distraction and help technicians get your truck back on the job faster

ADJUSTABLE STEERING WHEEL

tilt and reach -adjustable allows for easier operation and more belly room



CORNER WINDOWS

enhances side visibility (especially on ASL)

A-PILLAR INSERTS

makes it easier and faster to maintain harnesses and reduces downtime

NO CONTROL BOXES

custom-engineered configurations eliminate body control boxes from the cab interior for better driver visibility

DRIVING CONFIGURATIONS

standup RH drive, seated RH drive, dual drive, or passenger seat - all custom-engineered for driver comfort and productivity

WRAPAROUND WINDSHIELD

contributes to 325-degree driver visibility and its two-piece construction simplifies maintenance



The Always Up 7" Smart Dash Display

Autocar's Smart Display is engineered to reinforce driver focus and expedite problem-solving for technicians. Drivers have different mode options to select their preferred level of information to minimize distraction. Electrical diagnostic time can be reduced with Autocar "One Touch" guided diagnostics.

For Drivers

- Drivers can select the gauges and info they want displayed
- Multi-tier Level Warning System pre-emptively makes the driver aware of changing conditions on the truck before its critical

For Technicians

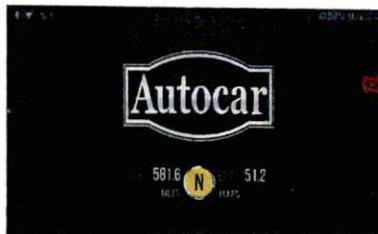
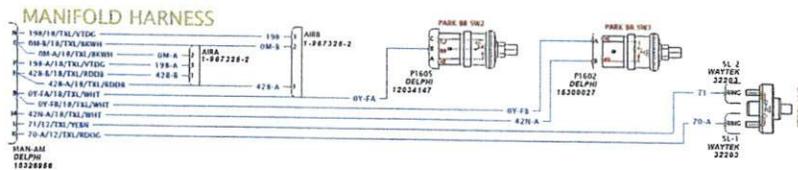
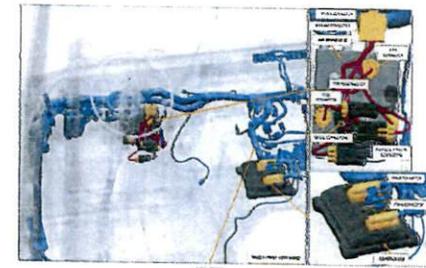
- Provides electrical diagnostic/report of failed fuses or circuits
- Access to service, body builder, and operator manuals
- Easy access to wiring schematics and 3D diagrams



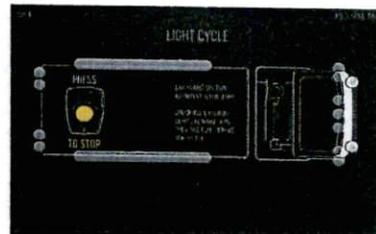
FOCUS MODE only displays gauges and key information



ONE TOUCH DIAGNOSTICS: ROTARY ENCODER
interface tool that controls smart dash



NO DISTRACTION MODE
reduces distractions by only populating gauges as required



LIGHT CYCLE TEST
driver can check all lights with automated light sequence



SMART FUSE BOXES
shows fuse and relay faults live



SMART FUSE BOXES
real-time relay and fuse statuses

AUTOCAR® ACX®

Best in Class Routing and Clipping

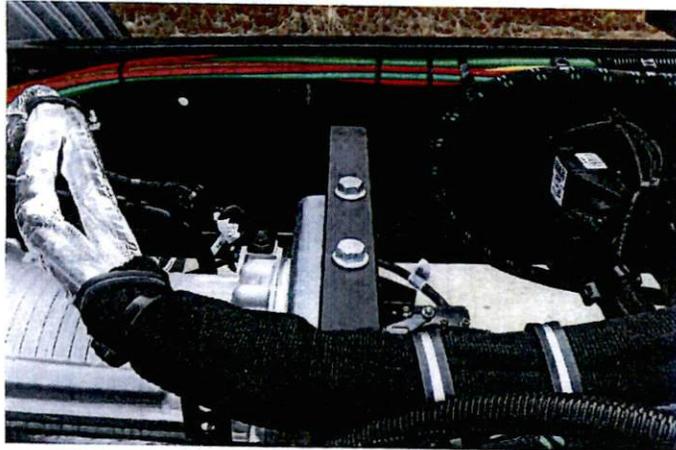
70% of truck-down situations are electrical failures, which challenged Autocar to set a new industry standard for harness wiring. The new method maintains the truck's integrity by eliminating external harnesses and drilling holes in the cab.

Pass-Through Harness Wiring

- Breathable harness coverings for better protection to keep out water, dirt and chemicals
- Clips and hangers keep the wiring from rubbing against the frame, helping to prevent electrical shorts
- Water sealed connectors in easy to reach locations for fault finding, diagnostics and body integration
- Elimination of over 80 lbs of wiring simplifies maintenance and optimizes legal weight payload up to 1,000 lbs.
- Two engineered harness pass-throughs make troubleshooting easier to perform, reduce likelihood of maintenance errors

IMPROVED ROUTING

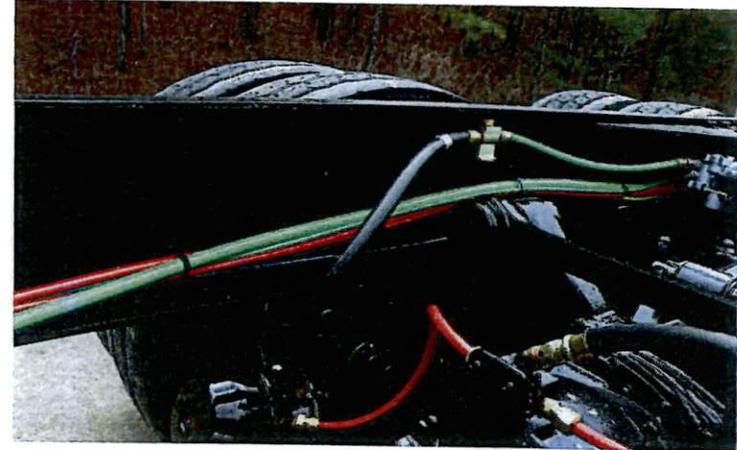
harnesses are clamped away from the bottom frame flange to protect from dirt build-up



FMM COOLANT LINE INSULATION
coolant lines are insulated as part of the prep for the CNG System

HELLERMAN TITAN CLAMPING

used to support harness every 12"



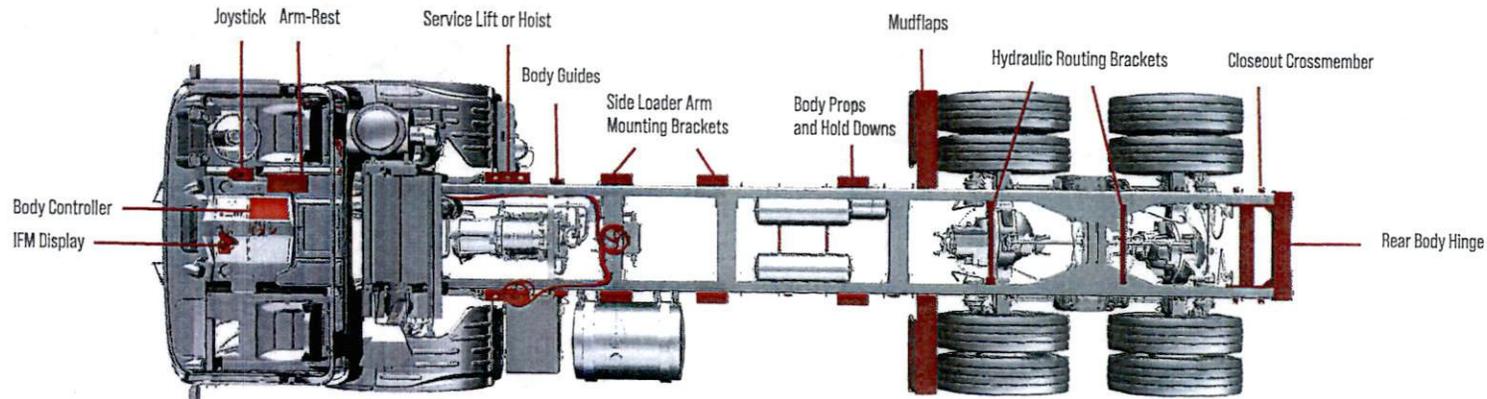
COLOR-CODED AIRLINES
airlines are color-coded for ease of fault finding

Power of One® Integration

Autocar partners with willing body companies to deliver the highest level of body integration in the industry. Power of One Integration ensures a fully integrated, production-ready tool for seamless body mounting. This collaboration is a breakthrough process that eliminates the need for chassis modifications and produces an assembled solution for the customer's needs.

Industry Leading Body Integration

- Collaborating with body builders to integrate key body mount features, facilitating clean body installation and uptime
- All body components are installed during production process with full OEM quality— delivering ready-to-work trucks faster
- Chassis are laser cut to the required length with the desired rear cutoff, allowing the installation of the body to be exact
- Body-integrated holes are punched, not drilled, which eliminates welding and preserves the truck's integrity



FACTORY-INSTALLED BODY CONTROLS

factory integration of critical body controls, body builder harnesses, and camera systems avoid the need to tear cab apart

body controls are clean and unobstructed, removing clutter that confuses the operator

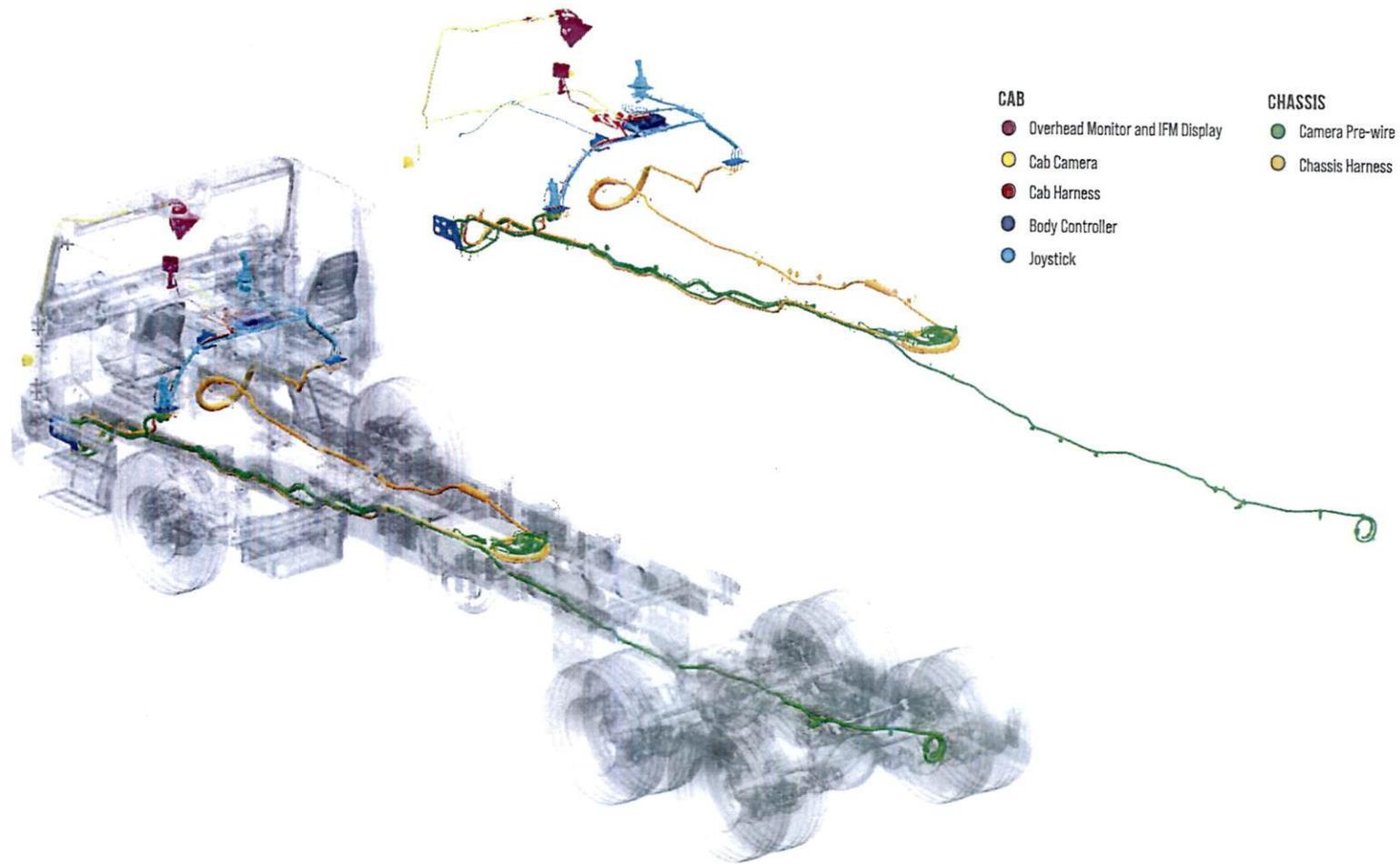


HUCK BOLTED BODY COMPONENTS

body components are huck-bolted (not welded) onto frame rails in the correct locations, which avoids misplacement and damage to the rails

Industry Leading Electrical Integration

- Body builder and Autocar harnesses are installed together, which helps avoid need to disassemble cab
- Autocar provides body builder connections, so harnesses do not need to be spliced or tabbed
- Expedited body mounting with no cutting protects chassis and cab quality for increased reliability
- All the electrical harnesses are installed together, eliminating the risk of loose connectors or drilled access holes
- Factory installation of critical electrical harnesses and data cables establishes predictability to the body mount cycle

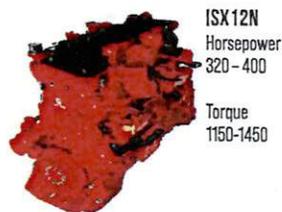


Industry's Best Performance Engines and Aftertreatment

Cummins' Single Module™ system combined with our convenient service locations expedites inspection time. Aftertreatment is designed to be up to 60% smaller and 40% lighter than preceding aftertreatment systems. Cummins offers fuel economy, low operating costs, and an extensive service network.

Cummins Engines

- Exceptional performance in diesel and compressed natural gas options with leading power-to-weight ratio
- Improved fuel efficiency and extended maintenance intervals provide a low cost of ownership per mile
- Simple to maintain and serviceable modular design with factory-ready connected solutions
- Single module aftertreatment is more efficient and requires fewer active regens

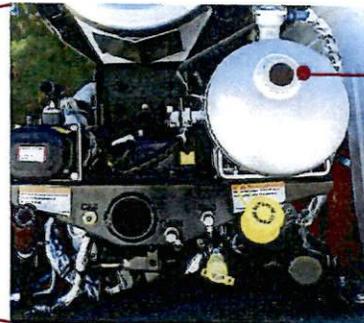


Cummins High Efficiency Aftertreatment System

- Advancements in catalyst technologies have allowed the diesel particulate filter to have a bigger ash capacity
- Daily service inspection items are always located in the same place, allowing for faster pre-trip checks
- Fluid check and fill locations are grouped together to facilitate ease of access during inspections
- Larger sight glass gives a better view of the coolant level to prevent over or under-fill situations



AUTOCAR® ACX®

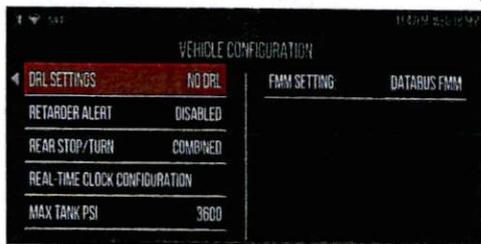


SIGHT GLASS

Compressed Natural Gas (CNG) Integration

Autocar is the only OEM chassis manufacturer that provides CNG-ready installation direct from its factory. Factory-installed and tested means you have Autocar-backed performance, which certifies functionality, and reduces maintenance time. Autocar is currently running its fourth generation of CNG engines.

Industry Leading Fuel Management Module (FMM) Preparation



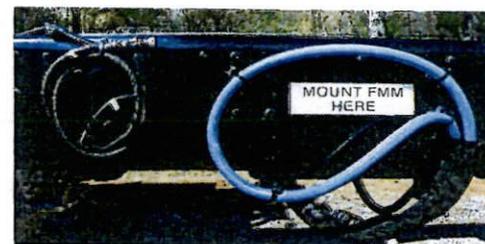
ACX FMM SETTINGS

7" Smart Dash Display is pre-configured for various FMM connections, eliminating the need to install suppliers' gauges



ACX FUEL RECEPTACLE OPEN ERROR MESSAGE

diagnostic and Fuel Management Modules (FMM) are installed to allow the operator to monitor engine performance and gas usage



ACX FMM CONNECTOR AND COOLANT LINES

CNG-specific connector is positioned to connect to the FMM without splicing into wiring harnesses, and pre-engineering establishes that the coolant hoses are sized correctly and run from their corresponding port

CNG ACX WITH A TEMPORARY (PONY) TANK

before the truck is sent to the CNG provider, the temporary tank is connected to the FMM kit, and a quality inspection is performed



CUSTOMIZED SOLUTIONS

guarantee your truck is ready for all types of CNG installations: Cabinet, Frame Rail, Rooftop, Tailgate



ACX FRAME RAIL INSTALL



ACX CABINET INSTALL

Steering and Maneuverability

ACX has the best turning circle in the industry, featuring the best-in-class turning radius and wheel cut. A tighter turning radius and larger wheel cut reduces backup situations and allows drivers to maneuver more easily in confined residential areas. The ease of steering with the Autocar ACX reduces cycle time and increases driver maneuverability during their route.

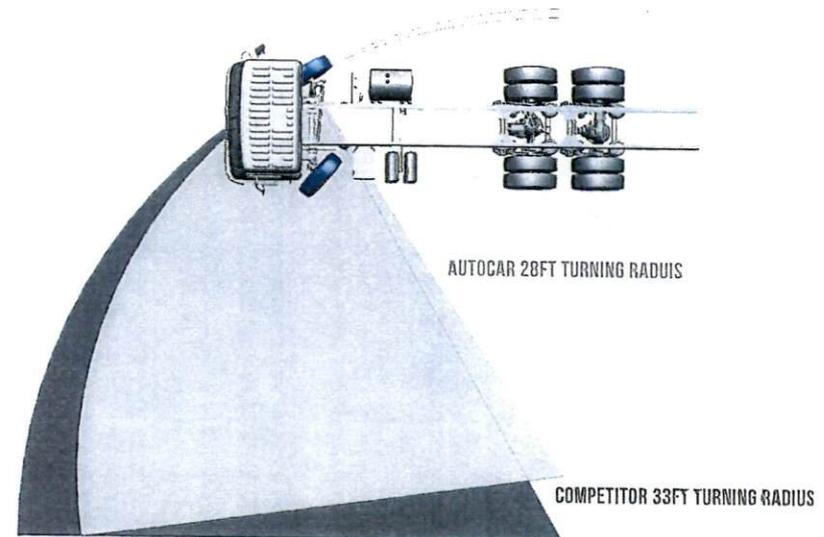
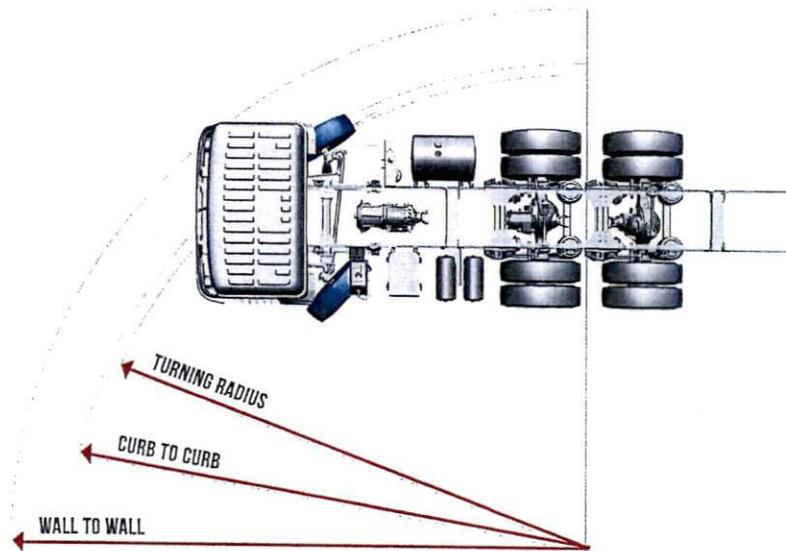
Autocar ACX

- 48° Wheel Cut
- 28ft Turning Radius
- 29ft Curb to Curb Radius
- 32ft Wall to Wall Radius

VS.

Competitor

- 37° Wheel Cut
- 33ft Turning Radius
- 34ft Curb to Curb Radius
- 36ft Wall to Wall Radius



CONFIGURATION USED: Wheelbase 204" | Tire Size 315/80R 22.5L | Wheel 22.5 X 9.0 Aluminum, 3.12" Inset

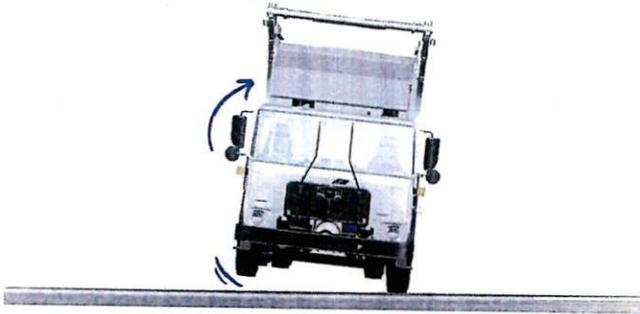
AUTOCAR® ACX®

Advanced Driver Assistance System (ADAS)

The Waste Collection Industry is among those with the highest rates of fatal work injuries (Bureau of Labor Statistics). To address this challenge, Autocar partnered with WABCO to develop a new standard of security for drivers. An Autocar ACX with ADAS empowers drivers with six advanced and embedded safety features.

ELECTRONIC STABILITY CONTROL SYSTEM (ESC) AND ROLLOVER STABILITY CONTROL SYSTEM (RSC)

- 1. ESC - actively intervenes when the vehicle is understeering or oversteering in order to maintain vehicle stability
- 2. RSC - actively intervenes when the vehicle is at risk of a driver induced roll over event



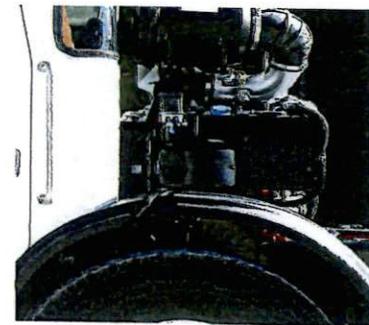
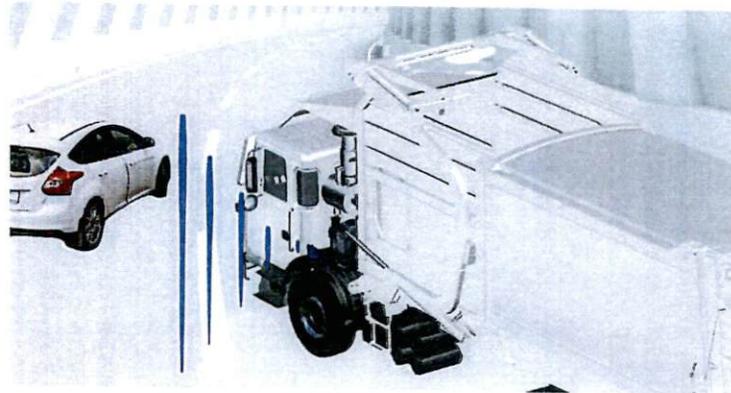
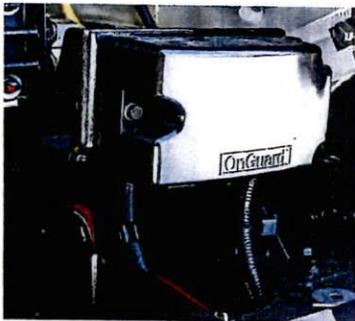
ADVANCED EMERGENCY BRAKING SYSTEM (AEBS) AND FORWARD COLLISION WARNING (FCW)

- 3. AEBS - vehicle detects impending collision and actively engages emergency brakes
- 4. FCW - driver visibly and audibly warned of impending collision



STATIONARY MERGE ASSISTANT (SMA) AND BLIND SPOT DETECTION (BSD)

- 5. SMA - visibly and audibly warns the driver of a vehicle in blind spot at 0 mph
- 6. BSD - flashing light located on the A-pillar warns the driver of a vehicle in blind spot



No system is fail-proof. Driver attention is required at all times. ADAS does not replace an alert and trained operator. Operators should monitor surroundings, vehicle speed and position at all times.



ACX REAR LOADER



ACX AUTOMATED SIDE LOADER



ACX ROLL-OFF



ACX FRONT LOADER

Discover more at autocartruck.com/acx or call 833.857.0200

A. BODY CAPACITY AND DIMENSIONS:

	Exactly as Specified		
	YES	NO	Offered
1. The body shall be brake-formed radiused "Chiseled" rounded to permit maximum capacity.	✓	_____	_____
2. The maximum capacity of the body including tailgate shall be, excluding hopper area: [Specify: 20, 24, 27, or 31 cu.yd)	✓	_____	33 yds
3. The hopper shall be 4 cu yd.	✓	_____	5.4 yds
4. The inside hopper width at front shall be 70".	✓	_____	91"
5. The inside body width rear shall be 90".	✓	_____	91"
6. The outside body width shall be 96" (across rear post).	✓	_____	96"
7. The outside body width shall be 98" (fenders)	✓	_____	102" COVER WHEELS
8. The outside body width shall be 101" (hose guards).	✓	_____	102"
9. The outside body height above chassis frame shall be 98".	✓	_____	96"
10. The inside body height shall be 89.81".	✓	_____	82"
11. The overall <u>body length including hopper</u> shall be:			
20 cu yd Capacity Body – 210"	_____	_____	_____
24 cu yd Capacity Body – 234"	_____	_____	_____
27 cu yd Capacity Body – 258"	_____	_____	_____
31 cu yd Capacity Body – 282"	✓	_____	33 yd. 268"
12. The overall body length including <u>hopper</u> and <u>lift arm</u> shall be:			
20 cu yd Capacity Body – 230"	_____	_____	_____
24 cu yd Capacity Body – 254"	_____	_____	_____
27 cu yd Capacity Body – 278"	_____	_____	_____
31 cu yd Capacity Body – 302"	✓	_____	300" 33 yd.

B. BODY CONSTRUCTION:

1. The body shall have a brake-formed radius design.	✓	_____	SMOOTH FORMED
2. The body floor shall be flat.	✓	_____	_____

Greg T. [Signature]

	Exactly as Specified		Offered
	YES	NO	
3. The body floor thickness shall be 3/16" Hardox 450.	✓		EXCEED 1/4"
4. The body long sills shall be 6" @ 10.5 lb/ft structural channel.	✓		EXCEED 145 FT/LBS
5. The body floor reinforcements shall be 1/4" ASTM A-715 GR 50 formed steel members.	✓		EXCEED
6. The body sides and roof shall have a brake-formed radius design providing superior structural strength to weight ratio.	✓		SMOOTH FORMED
7. The body sides shall be formed from a one-piece panel with no vertical weld seams.	✓		
8. The body sides and roof steel grade shall be 10ga ASTM A1011 grade 80.	✓		EXCEED 8 GA
9. Front perimeter of the body will incorporate a external angle 4 7/8" x 3-7/8" x 10ga ASTM A-715 GR 50 internal bolster.	✓		EXCEED GR 80
10. Rear perimeter of the body will incorporate an external 4" x 3 1/2" 7ga ASTM A715 GR 50 formed bolster.	✓		EXCEED GR 80
11. A 10ga ASTM A715 GR 50 6" x 2-7/8" external crown rail shall form the transition from the single piece side sheet to the roof of the body.	✓		EXCEED GR 80
12. Roof reinforcement shall incorporate a full length 4" x 2" x 1/4" ASTM A500 GR b rectangle tube.	✓		EXCEED GRADE 800 GR
13. The body fenders shall be light weight material to reduce overall weight.	✓		
14. Steel inner fender rub rail thickness shall be 3/16" Hardox 450.	✓		1/4" AR400 200K PSI
15. The body shall include a bolt-on rear under ride guard as standard equipment to meet Federal Motor Carrier Safety Regulation (49CFR393.86) Safety Reg., 49CFR393.86, TTMA RP No 41-02, and SAE J682, Oct84.	✓		

C. HOPPER CONSTRUCTION:

1. The hopper shall have a minimum static capacity of 4 cu yd.	✓		EXCEED 5.4
2.			

Greg T. Picher

	Exactly as Specified		
	YES	NO	Offered
3. The hopper shall have a minimum dynamic capacity (displacement rate) of 10.5 cu yd per minute.	✓	_____	_____
4. The hopper floor must include a 1/8" Hardox 450 liner that Extends into the body an additional 38".	✓	_____	3/16" LINER
5. The hopper floor steel grade shall be: AR450 Hardox, and be 3/16" thick.	✓	_____	1/4" EXCEED
6. The hopper sides walls steel grade shall be AR450 Hardox and be 3/16" thick.	✓	_____	1/4" EXCEED
7. A hopper access door shall be provided above the packing panel on the street side of the body to permit access into the hopper area.	✓	_____	_____
8. The hopper access door shall be equipped with a safety interlock switch to disable all functions if the access door is opened.	✓	_____	_____
9. The hopper access door dimensions shall be: 28" x 32", thickness shall be 11ga ASTM A715 GR 50.	✓	_____	40" x 28" GR 80 EXCEED
10. A hopper ladder with grab handles shall be located on the street side of the hopper.	✓	_____	_____
11. The hopper ladder shall be bolted on to the hopper.	✓	_____	_____
12. The ladder must have and OSHA Standard 7" toe spacing between the ladder rung and the side of the hopper.	✓	_____	_____
13. A transverse sump shall extend the full width of the front hopper.	✓	_____	_____
14. Two (2) 14" x 20" sealed sump access doors equipped with handles and quick acting over center toggle latches shall facilitate clean out of the sump.	✓	_____	_____
15. A clean out tool option shall be provided to facilitate easy removal of any accumulated debris from the hopper sump area.	✓	_____	_____
16. A holder shall be provided on the body side to secure the clean out tool in a stored position.	✓	_____	_____

Ray Tucker

Exactly as Specified
 YES NO Offered

- 17. The hopper shall have optional plastic gull wing hopper covers to enclose the hopper during transport. ✓ SINGLE
NO GULL WINGS
- 18. The hopper cover shall be opened/closed by a single manual control lever located on the right-hand side of the hopper wall. an optional in cab controlled, air operated version is also available. ✓
- 19. The hopper cover must have an interlock eliminating the ability to dump a container if the hopper cover is closed. ✓
- 20. Interior hopper side sheet shall extend into the body with no welds at the hopper to body transition. ✓

D. PACKING MECHANISM:

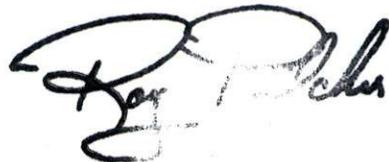
- 1. Must have a manual super pack operation that allows the panel to extend into the body to clear debris from the hopper area. ✓
- 2. Packer hydraulic control must utilize a regeneration circuit and include manual overrides for maintenance and repair functions. ✓
- 3. The packing panel shall be 33" high x wide. ✓ 60" PACKING
FACE
- 4. A single, centrally mounted, pack cylinder shall generate 83,000 lbs. of packing force. Two cylinder and/or continuous packing mechanisms are not acceptable. ✓ 118,000 lbs.
EXCEED
- 5. The packer shall be a platen type design, integral with body. ✓
- 6. The packing panel shall complete an auto pack cycle in a maximum of 13 seconds @ 800RPM. ✓
- 7. Packing panel top thickness shall be ¼" ASTM A715 GR 50. ✓ GRADE 80
- 8. Packing panel face plate shall be 3/8" ASTM A715 GR 50 ✓ GRADE 80
- 9. Packing panel shall be reinforced with a combination of structural members for maximum rigidity. ✓
- 10. The packing panel shall be guided by a single self-cleaning "T" rail located in the center of the body. ✓ ✓ NO CENTER
RAIL
- 11. "T" rail and thickness shall be: ½", AR450 Hardox ultra high-strength, high abrasion resistant steel plate. ✓ 185,000 PSI
AR - EXCEED

Greg Tucker

	Exactly as Specified		
	YES	NO	Offered
12. Packing panel wear shoes thickness shall be ¼" AR450 Hardox.	✓	_____	_____
13. The packing mechanism shall use a single, double-acting telescopic cylinder will be supported by self-aligning bearings on each end. these will be <u>3-stage</u> for 16-, 20-, 24- and 27-yard units.	✓	_____	33yo
14. Cylinder shall be centrally mounted above the hopper box.	✓	_____	_____
15. Cylinder bore diameter shall be 6 ½".	✓	_____	5.5"
16. The main cylinder sleeve shall be induction hardness and chrome plated.	✓	_____	_____
17. All stages of the sleeves must have metallic scrapers to protect from internal contamination and damage.	✓	_____	_____
18. The first stage of the cylinder shall be a 64" stroke.	✓	_____	_____
19. The cylinder full eject stroke shall be:			
20 cu yd Capacity Body – 3 stage with a stroke of 133.5"	_____	_____	_____
24 cu yd Capacity Body – 3 stage with a stroke of 157.5"	_____	_____	_____
27 cu yd Capacity Body – 3 stage with a stroke of 181.5"	_____	_____	_____
31 cu yd Capacity Body – 3 stage with a strike of 205.5"	✓	_____	_____
20. Maximum operation pressure shall be 3000 psi.	✓	_____	2500 PSI
21. Inside width of packing panel shall be 70".	✓	_____	79.5"
22. Inside height of packing panel shall be 33".	✓	_____	36"
23. The automatic packing cycle stroke shall be 52".	✓	_____	62"
24. Packing panel swept volume shall be 4 cu yd.	✓	_____	_____

E. FULL EJECT – PUSH OUT:

1. The pack/eject panel shall be capable of a complete extend/retract cycle in less than 30 seconds.	✓	_____	_____
2. All eject controls shall be operated from inside the cab.	✓	_____	_____



Exactly as Specified
YES NO Offered

- | | | | |
|---|---|-------|-------|
| 3. The pack/eject shall not be capable of extending into the body during an auto pack cycle with the tailgate closed. | ✓ | _____ | _____ |
| 4. A lockout system shall be supplied to allow the ejector panel to the ejection mode only with the tailgate is in the open position. | ✓ | _____ | _____ |
| 5. A lockout system shall be supplied to require the ejector panel is in the home position before the tailgate can be lowered. | ✓ | _____ | _____ |

F. TAILGATE:

- | | | | |
|--|---|-------|-----------------------|
| 1. The tailgate shall be hydraulically operated, top hinge bustle type. | ✓ | _____ | _____ |
| 2. The tailgate shall automatically lock and unlock without the use of additional locking cylinders, cables or manual turnbuckles. | ✓ | _____ | _____ |
| 3. The tailgate must use the operating system to remain closed and pressurized in the locked position without the use of any external control blocks or devices. | ✓ | _____ | _____ |
| 4. The tailgate locking mechanism shall utilize a progressive inverter cam roller design. | ✓ | _____ | _____ |
| 5. Tailgate thickness shall be 10ga ASTM A715 GR 50. | ✓ | _____ | 8GA. GR50
EXCEED |
| 6. The tailgate latch roller shall be fully supported by a horizontal bolster around the lower perimeter of the tailgate. | ✓ | _____ | POSITIVE PIN
LATCH |
| 7. The tailgate shall be operated by 2 cylinders. | ✓ | _____ | _____ |
| 8. Tailgate cylinders shall be chrome plated rod with 1 1/2" diameter and 3" bore diameter. | ✓ | _____ | _____ |
| 9. Tailgate cylinder stroke shall be 36 1/2". | ✓ | _____ | _____ |
| 10. Tailgate cylinder time at idle shall be 30 seconds. | ✓ | _____ | _____ |
| 11. The tailgate side sheets will have an integral rolled flange that overlaps the perimeter of the rear tailgate sheet. | ✓ | _____ | _____ |
| 12. A rubber seal shall be installed on the tailgate and extend across the entire bottom and vertically up each side a minimum of 60". | ✓ | _____ | 72" EXCEED |

Exactly as Specified
 YES NO Offered

- 13. A cab mounted light and audible alarm shall be provided to indicate that the tailgate is unlocked. ✓ _____
- 14. The tailgate noise control shall include a delayed action to guard against accidental activation. ✓ _____
- 15. Self-contained horizontal tailgate maintenance safety props shall be provided. ✓ _____
- 16. The tailgate shall have a wire harness with Deutsch IP 69K connections between the body and the tailgate to isolate the tailgate wiring from the body. ✓ _____

G. AUTOMATED LIFTING MECHANISM:

- 1. The lifting arm mechanism shall be capable of operating simultaneously during any phase of packing operations with full force and flow. ✓ _____
- 2. Lift arm shall be mounted directly to the chassis frame rail. Tip to Dump units with the lift arm mounted to the body are not acceptable. ✓ _____
- 3. The lift arm lower base weldment shall straddle both chassis frame rails and be secured to its mounting brackets with four 1" grade eight bolts. ✓ _____
- 4. The lowest base weld mount shall be fully constructed of ¼" ASTM A715 GR50 steel. ✓ _____ EXCEED GRADE 80
- 5. Arm must utilize hardened spherical self-aligning bushings at dump pivot, tapered roller bearings at gripper pivots. ✓ _____
- 6. Arm must have an automatic container shake feature that allows the inner boom to short stroke to be effective and easy on the arm assembly. ✓ _____
- 7. The Lifting Arm mechanism must have a lifting capacity of 1,750 lbs. at full extension and 2,000 lbs. retracted. ✓ _____ 1600 SET 3200 RATED
- 8. The Lifting Arm mechanism must have no more than a 15" kick out through the entire arc of the container lift. ✓ _____ LESS THAN 12" EXCEED SPEC.

Greg T. Fisher

Exactly as Specified
 YES NO Offered

- 9. The Lifting Arm mechanism must be within the 96" road limit in the travel position with the grippers in the full lowered position and opened/home position. ✓
- 10. No portion of the lift mechanism shall have less than 13" of ground clearance in the stowed position. ✓
- 11. Lift Arm extension from the side of the body must be horizontal in a linear fashion. No swinging or arching of the lift arm is permitted. ✓
- 12. Lift Arm mechanism shall have a reach of 84" from the side of the body to the centerline of a 90-gallon container. ✓
- 13. Lift Arm mechanism shall be capable of grasping a container located 6" from the side of the body. ✓
- 14. Vertical dump height shall not exceed 120" above the truck frame while dumping a 90-gallon container. ✓
- 15. Container dump angle shall be a minimum of 45 degrees to insure complete dumping of container contents. ✓
- 16. Lifting mechanism shall be capable of a complete cycle, which includes Grip-Lift-Dump-Un-Dump-Lower and Un-grip in a maximum of 8 seconds including proportional cushioning. ✓
- 17. The Lifting Arm must be constructed utilizing an Inner and Outer Arm assembly. ✓
- 18. The inner Arm must be 8" x 6" x 3/16" fabricated rectangular box constructed of ASTM A500 Grade B. ✓ EXCEED
ASTM A800
- 19. The outer Arm assembly shall be 10" x 8" x 3/8" fabricated rectangular box constructed of ASTM A500 grade B. ✓ EXCEED
ASTM A 800
- 20. The inner arm assembly shall include upper and lower 3/8" AR450 Hardox roller bearing tracks. ✓
- 21. The inner arm assembly shall glide in and out on six (6) 4" roller bearings and four (4) plastic slide blocks to guide inner arm. ✓
- 22. Roller bearings shall rotate on a eccentric pin roller adjustment to allow compensation for wear and maintain the grippers parallel with the ground. The trunnion will allow the rollers to have full contact with the inner arm tracks. ✓

Ray Tucker

Exactly as Specified
 YES NO Offered

- 23. Inner and Outer Arm pivot pins shall be 2" C1045 turn ground, heat-treated and polished pins held with 2" self-aligning spherical bearings.
- 24. Lift Arm must have a safety interlock to restrict dumping unless the container is positioned over the hopper opening.
- 25. Lift Arm hydraulics shall be controlled by a 4-spool sectional valve equipped with hydraulic pilot actuators for proportional spool positioning.
- 26. Standard joystick lift function controls shall be proportional electric over pilot operated hydraulic spools.
- 27. Solid state linear prox bar for boom angle and ultrasonic sensor for boom in/out.
- 28. Dump and grip cylinders shall include internal linear position sensors to provide position feedback to the control system.
- 29. Use of standard proximity switches for arm sensing shall not be acceptable. *AGREE WE USE HQ PROXIMITY SENSORS*
- 30. Arm must be equipped with an air actuated boom safety latch that keeps the inner boom locked in the home position when not in use.
- 31. No air operation or controls may be used in the operation of the arm except for arm safety latch operation.
- 32. Joystick shall be conveniently located to the left of the operator.
- 33. Joystick must be can-bus multi-functional operation for all standard arm functions; including auto-grip-un-grip, packer function, work lights, container shake feature. Selectable dead man function.
- 34. An ergonomically designed padded armrest shall be provided to support the operator's arm during joystick operation.
- 35. Two (2) additional control options shall be provided for the operator; additional controls shall consist of a three (3) rocker switch console located on the right hand window sill to allow activation by the operator and a three (3) rocker switch console with dead-man control located at the side of the operator's seat to be activated if the operator is standing outside of the cab.

Jay Tucker

Exactly as Specified
 YES NO Offered

- 36. An Automated Dump Cycle "Coordinator" option shall be provided.
- 37. "Coordinator" shall allow the operator to manually reach and grip a container, continued contact on arm lift switch shall cause the container to be raised, dumped and lowered to the side of the vehicle, un-gripped and the arm returns to the stowed/home position.
- 38. The Lifting Arm must utilize for (4) hydraulic cylinders. Cylinders shall include:
 - Reach (In-Out) 1 3/4" bore x 66" stroke 2" x 82"
 - Lift (Arm Up-Down) 2 1/4" bore x 26" stroke 3.5" x 29"
 - Dump (Cart Dump/Un-Dump) 2 1/2" bore x 10" stroke 4" x 20"
 - Grab (Grip/Release) 2 1/2" bore x 8 1/2" stroke 3.5" x 16"

H. GRIPPERS:

For Steel Grippers 30-110 Gallon Container

- 1. Grip/Release shall be actuated by a single, double-acting 2 1/2" x 8 1/2" stroke hydraulic cylinder with internal positioning sensor.
- 2. Gripper pivots shall incorporate receiver pockets to allow gripper assemblies to be easily interchangeable.
- 3. Gripper pivot shafts shall be machined from SAE41L42 quenched and tempered cold drawn steel shafting.
- 4. gripper pivots shall pivot on tapered roller bearings.
- 5. Gripper gears shall be constructed from 1" thick AR500 material. 1.5" EXCEED
- 6. An infinitely adjustable pressure valve shall control the grip pressure/radial force: Switch will be located on the control console.
- 7. Gripper shall be capable of handling 30 – 110-gallon containers designed for automated collections.
- 8. Grippers shall have UHMW polyethylene rollers at the tip to protect and assist in grasping the container.



Exactly as Specified
YES NO Offered

For Belt Grippers 30-110 Gallon Containers

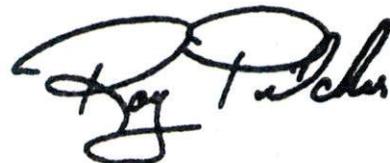
- | | | | |
|--|---|-------|-------|
| 9. Gripper shall be capable of handling 30–110-gallon container designed for automated collection. | ✓ | _____ | _____ |
| 10. Gripper shall have a stationary inner arm and a pivoting outer arm. | ✓ | _____ | _____ |
| 11. The pivoting outer arm shall provide tension using tensional springs. | ✓ | _____ | _____ |
| 12. Gripper shall have a belt 4" wide and connected on each end with three bolts. | ✓ | _____ | _____ |
| 13. grippers shall pivot on adjustable tapered roller bearings. | ✓ | _____ | _____ |
| 14. Grippers shall have UHMW poly thylene roller bearings. | ✓ | _____ | _____ |

Universal Grippers

- | | | | |
|--|---|-------|-------|
| 15. The gripper shall be capable of grasping and dumping containers with capacities from 40-450 gallons with out the need to change grippers. | ✓ | _____ | _____ |
| 16. The grippers shall exert on appropriate radial force on each size container to firmly grip the container without dropping, damaging, or contorting. This force shall be controlled by a switch on the control panel. | ✓ | _____ | _____ |

I. Electronic Proportional Control System (EPC):

- | | | | |
|---|---|-------|-------|
| 1. An electronic proportional control system shall be provided that will give the operator the ability to "feather" the automated lifting mechanism with gripping/un-gripping, extending/retracting, raising/lowering, dumping/un-dumping the containers. (No Exceptions) | ✓ | _____ | _____ |
| 2. The automated lifting mechanism shall be controlled by an electronic operated hydraulic directional control valve. The valve shall respond to proportional outputs (PWM signals) from the controller. | ✓ | _____ | _____ |
| 3. Positive linear sensors shall be incorporated into the system to provide feedback of the position of the lift arm while raising, dumping and gripping the containers. | ✓ | _____ | _____ |



Exactly as Specified
 YES NO Offered

- | | | | |
|---|-----------|------|------|
| 4. The system shall consist of multiple electrical components multiplexed together using SAE J1939 Canbus to provide a complete and expandable system. | ✓
____ | ____ | ____ |
| 5. Must have a separate Canbus to communicate with the engine and transmission. | ✓
____ | ____ | ____ |
| 6. Must have an engine monitoring system to protect from over torquing or stalling the engine in high load operations. | ✓
____ | ____ | ____ |
| 7. A controller designed for mobile equipment with multiple digital and analog inputs and outputs shall be mounted near the main automated lifting mechanism hydraulic control valve. | ✓
____ | ____ | ____ |
| 8. Remote I/O shall communicate through the Canbus to provide for the inputs and outputs not directly connected to the main controller. | ✓
____ | ____ | ____ |
| 9. A color display will be provided in the cab convenient to the operator. The display will feature a function key driven menu system to access system functions. | ✓
____ | ____ | ____ |
| 10. The joystick will also include four momentary switches for frequently used functions including pack start, container shake, work lights and auto grip/un-grip. | ✓
____ | ____ | ____ |
| 11. A multi-functional joystick shall be provided. It will include two proportional "axis" for extending and retracting the lift mechanism, raising and lowering the loft mechanism and a proportional rocker for closing and releasing the grippers. | ✓
____ | ____ | ____ |
| 12. The joystick will include a selectable hold-to-run switch to prevent unintentional operation of the control. | ✓
____ | ____ | ____ |
| 13. An optional bank of four rocker switches shall be available to allow lift mechanism operation from the curbside. | ✓
____ | ____ | ____ |
| 14. The menu system will include screens for the following: | | | |
| • Factory setup (password protected) so the system can be configured for the user's needs. | ✓
____ | ____ | ____ |
| • User setup to allow the user to change how specific features operate. | ✓
____ | ____ | ____ |
| • Input and output diagnostics for trouble shooting the system. | ✓
____ | ____ | ____ |

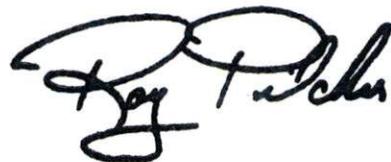
Greg T. [Signature]

Exactly as Specified
 YES NO Offered

- Lights, for turning on and off work and warning lights.
- Collection mode grouping the controls needed when picking up containers.
- Unloading mode grouping the controls needed when unloading the unit.
- Joystick operation showing the function of the joystick.
- Data collection showing counts of arm cycles, pack cycles, eject cycles, pump run times and warnings.
- System warning messages will display over the operation system.

J. HYDRAULIC SYSTEM

1. Hydraulic pump design must allow all hydraulic flow to be stopped during emergency situations (ex: hose burst) using the E-Stop button. NO EXCEPTIONS.
2. Hydraulic pump design must allow truck to be able to drive back to its home base without any harm to the pump and without spilling any fluid after engaging e-stop with no further modifications to the system, (ex: removing PTO shaft). NO EXCEPTIONS
3. An Eaton load sensing, power on demand (POD) hydraulic system featuring a variable displacement tandem piston pump driven by a long-life drive shaft must be used. NO EXCEPTIONS
4. The hydraulic pump shall be driven by chassis transmission PTO, direct mounted off engine crankshaft or a combination of both depending on the chassis limitations.
5. Piston pump system must be expected to last the life of the body (5-7 years) when properly maintained. NO EXCEPTION.
6. For maximum efficiency, the tandem load sense pump shall provide only the flow required for proper operation.
7. No over-speed control shall be required. NO EXCEPTIONS.
8. The arm hydraulic control valve must be true pilot operated, proportional post compensated style with manual over-rides for each junction. NO EXCEPTIONS.



	Exactly as Specified		
	YES	NO	Offered
9. Hydraulic reservoir shall be a maximum capacity of 40 gallons to reduce overall weight. The reservoir shall include internal baffling to direct the oil flow for maximum heat.	✓	_____	_____
10. A highly efficient light weight non-micro nucleation reservoir must be used, specifically designed to incorporate a suction screen without concerns of micro nucleation.	✓	_____	_____
11. Hydraulic reservoir shall be equipped with a fluid level sight glass and an in cab low lever indicator.	✓	_____	_____
12. hydraulic reservoir shall be equipped with a temperature sender so oil temperature can be monitored in the cab.	✓	_____	_____
13. Hydraulic reservoir shall be located on street side and frame mounted. System must be plumbed and sized sufficiently to the pump inlet to assure optimum inlet conditions without the need for augmented tank pressurization.	✓	_____	_____
14. The hydraulic system shall incorporate a full flow 10-micron absolute in-tank return line filter with replaceable element.	✓	_____	EXCEED 3 MICRON
15. The hydraulic system shall incorporate a fill flow 10-microm tank breather with replaceable element.	✓	_____	EXCEED 3 MICRON
16. All hydraulic fittings shall be O-ring Face Seal (OFS) or O-ring Boss (ORB).	✓	_____	_____
17. All hydraulic components shall be adequately sized and resigned to maintain appropriate hydraulic oil temperature.	✓	_____	_____
18. Maximum hydraulic system pressure for the lift arm and pack circuits shall be 3000 psi.	✓	_____	2500 PSI
19. Hydraulic system must provide arm operational gear at engine idle speed, RPM not to exceed 800. NO EXCEPTIONS.	✓	_____	_____
20. An optional self-contained forced air to oil cooler shall be available to ensure hydraulic oil temperature is regulated in high ambient temperature as needed for running in extreme environments.	✓	_____	_____

Ray Tucker

Exactly as Specified
 YES NO Offered

K. LIGHTS:

- 1. LED stop, tail, clearance and reverse lights shall be provided in accordance with FMVSS#108. ✓

- 2. An upper bolt on light bar shall be provided. ✓

- 3. Upper light bar shall contain two (2) if each 4" diameter stop/tail/turn lights and 2" diameter clearance and side marker lights. ✓

- 4. Lower light bar shall contain two (2) of each 4" diameter stop/tail/turn and reverse lights. ✓

- 5. All lights shall be sealed, Lexan covers and have flexible gasket mounting. ✓

- 6. Mid-body turn signals shall be provided. ✓

- 7. Two optional LED work lights shall be available, operated by a single push button switches on the in-cab joystick, one (1) light shall illuminate the hopper and one (1) shall illuminate the lift arm area. ✓

L. ELECTRICAL:

- 1. All electrical wiring shall be in protective looms. ✓

- 2. All wiring harness shall be Deutsch automotive type connections meeting IP67 specification connections. ✓

- 3. The electrical system shall not have junction boxes or terminations that do not use th IP67 specification connections. ✓

- 4. All circuits shall be properly fused, and wiring shall be color coded and numbered. ✓

M. PAINTING:

- 1. The entire unit shall be properly cleaned of all dirt, grease, and weld slag prior to painting. ✓

- 2. The complete unit shall be painted with DuPont Imron Elite high solids to a minimum of 3.5 mils. ✓
____ EXCEED
5.2 MIL
- 3. The body shall be painted on color (specify) CUSTOMER CHOICE
COLOR CHART
PROVIDED Jody Tucker

N. MANUALS:

One complete set of operators, parts and service manuals to be supplied for each refuse picker.

✓

O. WARRANTY:

1. The bidder shall offer a one (1) year body warranty against defective material or workmanship. ✓
2. The bidder shall offer a two (2) year warranty on all hydraulic cylinders against defective material or workmanship. ✓
3. The bidder shall offer a three (3) year warranty on the following products supplied by Eaton Corporation, tandem piston pump, hydraulic valves and OFS fittings and hoses against defective material or workmanship. ✓
4. The bidder shall offer a five (5) year structural warranty on the automatic arm with no additional cost to the customer. ✓

Ray Tucker

KOIS EQUIPMENT COMPANY INC.

BROTHERS

DENVER 5200 Colorado Blvd. Commerce City, CO 80022 Phone: 303-298-7370 Fax: 303-298-8527	BILLINGS 2107 Harnish Blvd. Billings, MT 59101 Phone: 406-652-3975 Fax: 406-652-3744	GREAT FALLS 1610 River Drive North Great Falls, MT 59401 Phone: 406-452-2757 Fax: 406-452-2799
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To Whom it May Concern,

I have spent hours with the guys at the shop and in City Council Meetings working toward solutions for the City of Laurel. My goal from day one is to create an honest open relationship that last for years. Below you will find differences in equipment being bid, as you read it you will see that it backs up what Ernie and I have shared in the past about Heil being a superior product. We want The City of Laurel to have the best performing, longest lasting unit available with Superior local Service.

Equipment Differences

Heil's body is made of 8-gauge material, New Way and Curb Tender are made with 10 gauge material just on the body. Heil uses 80,000 PSI. New Way and Curb Tender use EX Ten 50 which can be 36,000 to 50,000 PSI. 60% less in strength of just body.

Heils' hopper is a double wall body all 1/4 " AR 400 200,000 PSI. New Way and Curb Tender have AR400 but it is only single wall and only 3/16" and only rated at 177,000 PSI as described on the literature, material 25% less just in steel strength.

New Way's arm Arch's 24" out, ok for street work but NO Good for allies. Also only a 1000 pound capacity made primarily for 30-90 gallon containers.

Curb Tender has a boxed cylinder eject that protrudes into the floor. NO flat floor for easy clean out.

Tailgate on New Way and Curb Tender again is only 10 gauge steel with ex ten 50 type steel, 60% less strength.

Curb Tender's body is only 27 yards not 28 as requested.

New Ways body id 108" above the frame, the body probably won't fit in their garage. We are 96" above frame.

Nearest service location for NEW WAY is Lincoln NE or Commerce City, CO and Curb Tender is Spokane WA. They send techs, but work isn't always completed.

City of Laurel in the past paid over \$12,000 to have a tech from SWS come fix their truck last summer and when he left it still did not work.

As stated before, Kois Brothers is your local in Billings Heil Dealer with Factory trained technicians.

We bring to the table 100's of years of combined experience from our 3 locations.





WE NEVER STOP WORKING FOR YOU

DuraPack[®] Rapid Rail[®]
Automated Side Loader

A DOVER COMPANY



Proven Design. Legendary Performance.

www.Heil.com

Smarter By Design, With Loyalty Built In

The DuraPack® Rapid Rail® was specifically designed to maximize your productivity on daily collection routes.

DuraPack® Rapid Rail®

Reliable Automated Side Loader Performance

+ OPTIMIZED BODY WEIGHT

The **DuraPack Rapid Rail** is brilliantly designed to have an optimized weight, without sacrificing strength and durability. The result is a perfect combination of dependability and increased payload. Greater route productivity delivers the lowest Total Cost of Collection (TCC).

+ HIGH COMPACTION BODY

High tensile strength steel withstands the exceptional forces of the compaction cycle, ensuring maximum payloads, and fewer trips to the disposal site.

+ SERVICE SMART DESIGN

The **Rapid Rail** features our Service Smart design, which simplifies routine maintenance. Features include a new soft-shift valve, proximity switches, and a cable carrier that neatly houses and protects all of the arm's hydraulic hoses.

+ IN-CYLINDER HYDRAULIC SENSORS

Odyssey® hydraulic controls cylinder technology delivers reduced lift maintenance and lower parts cost. There are no proximity adjustments and no complex electrical box to troubleshoot. This results in a smoother lift, less operator fatigue and cab shake, and decreased wear.

+ CAN SHAKE FEATURE

Allows the operator to shake stubborn refuse out of the container using a preset number of can shakes at the top of the lift cycle with a simple press of a button.

+ PROPORTIONAL CONTROLS

The **DuraPack Rapid Rail** allows for precision control while giving the operator a smoother lift and reducing cab shake. The lift-feathering feature is standard, giving the ability to precisely pick containers from difficult areas. This reduces the need for the operator to exit the cab, lessens wear and tear on the lift, and increases uptime, delivering the Lowest Total Cost of Collection (TCC).

+ RAPID RAIL GRABBER GEARS

Made from specially formulated, high-strength, low-alloy steel, the **Rapid Rail** features superior hardened grabber gears that virtually eliminate gear wear. The gears are splined to the grabber shafts, and can be cycled up to 1,000,000 times with virtually little evidence of wear.

+ DUAL JOYSTICK CAPABILITY

The easy-to-operate joystick gives the operator precise control. Operate the lift like a **Rapid Rail** or a **DuraPack Python®** with a press of a button. This reduces the learning curve and training time, increasing productivity from day one, and allowing operators with mixed fleets to transition from unit to unit with no loss in route time.

+ MOBILE CONTROLLER WITH IN-SIGHT™ DISPLAY

The "brain" of our system is the rugged mobile controller. This brilliant innovation provides unbeatable intelligence and precise control. Placing the mobile controller in a protected location gives us the intelligence we need and the durability our customers demand. Less downtime, easier service, and unmatched ease of operation.



Discover What Sets The DuraPack® Apart



HEAVY LIFTING CAPACITY

1,600 pound lift capacity allows for residential, commercial, and multi-family collection. Utilize one unit with more payload carrying capacity.



ABOVE-GRADE CAN PICK-UPS

The **DuraPack Rapid Rail** arm can handle above-grade can pick-ups as high as two feet, eliminating the need for the operator to get out and reposition the can.



DURABILITY AND LONGEVITY

Our exclusive, fully welded, interlocked subframe provides exceptional longevity, while resisting abrasion, corrosion, and salt damage. The body is constructed of 7-8 ga. high tensile strength steel, while the hopper features 1/4" thick AR400 steel on the floor, and 3/16" thick AR400 steel on the sides for superior strength and durability.



AUTO LIFT FEATURE

Let the automation do the work. Simply press and hold the grab button, and the arm automatically carries the can up and into the hopper in one smooth motion.



WE NEVER STOP WORKING FOR YOU

DuraPack® Rapid Rail®
Automated Side Loader



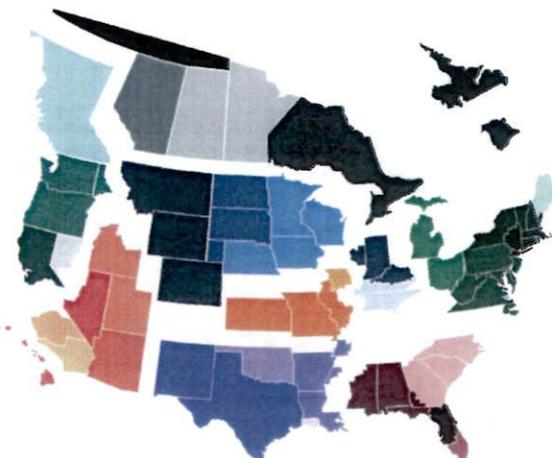
EXPEDITE THE PURCHASE OF YOUR HEIL® UNIT THROUGH SOURCEWELL

Sourcewell Cooperative Purchasing Program has awarded Heil a nationally bid contract for "Solid Waste and Recycling Collection Equipment with Related Equipment, Accessories, and Supplies." Through the Heil contract, Sourcewell members can purchase any of the Heil line of refuse and recycling equipment, including front-loading, side-loading, and rear-loading refuse collection vehicles, without having to create an RFP and send the project through a time-consuming duplicate bid process. By using the existing nationally bid contract, members can receive the products they need more quickly and cost effectively. Best of all, Sourcewell membership is free! Qualified agencies can join online via the Sourcewell purchasing website at www.sourcewell-mn.gov. To find out more about purchasing Heil equipment via the Sourcewell contract, please contact your local Heil Dealer at www.heil.com/dealers.



TRUST HEIL® CERTIFIED OEM PARTS

Heil Certified OEM parts are the most reliable replacement parts for Heil refuse collection vehicles. They're made following the exact specifications and production processes on the same assembly lines as the parts originally installed on the bodies. This means that they fit perfectly every time. Heil uses only the highest-quality materials for parts that last - minimizing costly downtime. For more information on parts, contact your Heil dealer. Visit: www.heil.com/dealers to find the dealer nearest you.



RELY ON EXPERIENCED LOCAL SUPPORT

When you buy from Heil, you gain the aftermarket support of the industry's strongest network of dealers in North America. We stand behind our dealers, so you get the product support you need for the life of your products. Our dealers are also trained to help you find the best product for your particular route needs. To find the Heil dealer nearest you, visit: www.heil.com/dealers.



All Heil products are Connected Collections™ ready. This is part of our vision, focused on helping fleet owners make better decisions, faster. For more information on EGG's Connected Collections, contact your local Heil dealer or visit us online at www.heil.com/connected-collections

www.heil.com     



COUNT ON THE LOWEST TCC

Helping you save money is our passion, and we apply tremendous resources to advance our product and service offerings to improve the profitability of your business and provide the lowest Total Cost of Collection and the maximum return on your investment. You can be confident that choosing Heil equipment brings a long-term partnership with the industry leader.



CONFIGURATION ASSISTANCE

Chassis layout drawings are available through your local Heil dealer. To find your dealer, visit www.heil.com/dealers.



INDUSTRY-LEADING TRAINING

Heil has completely revamped their training programs with the addition of both the Heil Service Shack™ and their four-tiered Nexteligenze™ Connected-Tech Training Program. Now, customers can visit the Heil Service Shack on the Heil website to learn the latest techniques and view helpful service and training videos any time, as well as sign up for Connected-Tech courses to better train technicians on Heil Refuse Products. Ensure your shops are servicing your Heil products correctly; check out the Heil training offerings at www.heil.com/nexteligenze.

CHASSIS ELECTRICAL REQUIREMENTS:

SEE SHEET 2
 CHASSIS INTEGRATION TABLE:
 SEE SHEET 2

ABBREVIATIONS

"WB" = WHEELBASE
 "CT" = CAB-TANDEM
 "PF" = PLATFORM
 "AF" = AFTERFRAME
 ("AF" = "PF" - "CT")
 "CG" = CENTER OF GRAVITY

BODY SIZE	24 & 28 YD		33 YD
	24 & 28 YD	33 YD	
"WB" (TYPICAL)	210		225
"CT" (USABLE)	185		208
"PF" (MIN)	270		317
"AF" (MIN)	85		109
BODY "CG"	117		131
PAYLOAD "CG"	185		201
MOUNTED BODY WEIGHT	16,700		18,000
TYPICAL PAYLOAD	25,200		28,000
FUEL TANK (16)	41.5"		41.5"
MAX LENGTH "A"	70 GAL		70 GAL

MEASUREMENTS ARE IN INCHES. WEIGHTS ARE IN LBS.

- NOTE:
- CHASSIS COMPONENTS MAY BE MOUNTED IN THIS AREA, BUT MAY NOT EXTEND MORE THAN 12" BELOW TOP OF CHASSIS RAIL OR EXTENDED MORE THAN 12" FROM SIDE OF CHASSIS RAIL.
 - THIS AREA FOR THE HOIST SADDLE BRACKETS, AIR TANKS MUST BE INSIDE FRAME AND ABOVE DRIVELINE IN THIS AREA.
 - AIR TANKS MUST BE LOCATED INSIDE CHASSIS FRAME RAILS AND ABOVE THE DRIVELINE.
 - FUEL TANK MUST BE MOUNTED ON LEFT HAND SIDE OF CHASSIS ONLY. MACK CHASSIS- USE PID 489 9030.
 - THIS AREA FOR HYDRAULIC RESERVOIR.
 - THIS AREA FOR BATTERY BOX BATTERY MUST BE MOUNTED 6" BELOW CHASSIS RAIL. IF BATTERIES WILL NOT FIT IN SPACE AVAILABLE THEY MUST BE MOUNTED ON RIGHT HAND CHASSIS RAIL AND NOTE #1 MUST BE FOLLOWED. ANY COMPONENT IN THIS AREA MUST BE 6" BELOW TOP OF RAIL.
 - ALL HORIZONTAL EXHAUST COMPONENTS MUST BE LOCATED INSIDE FRAME RAILS.
 - ALL CHASSIS MOUNTED COMPONENTS MUST BE MOUNTED BELOW THE TOP OF THE CHASSIS RAIL.
 - MOUNTED BODY WEIGHT DOES NOT INCLUDE OPTIONAL EQUIPMENT.
 - FRONT MOUNT PUMP INSTALLATION REQUIRES ENGINE ADAPTER FLANGE COMPATIBLE WITH SPICER 1350 SERIES DRIVELINE.
 - THIS AREA FOR PTO CLEARANCE.
 - THIS AREA FOR SUCTION LINE CLEARANCE.
 - FRONT MOUNT PUMP REQUIRES A MINIMUM 4-7/8" BUMPER EXTENSION.
 - TELMA INSTALLS MUST BE PRE-EVALUATED BY HEIL ENGINEERING BEFORE CHASSIS IS ORDERED.

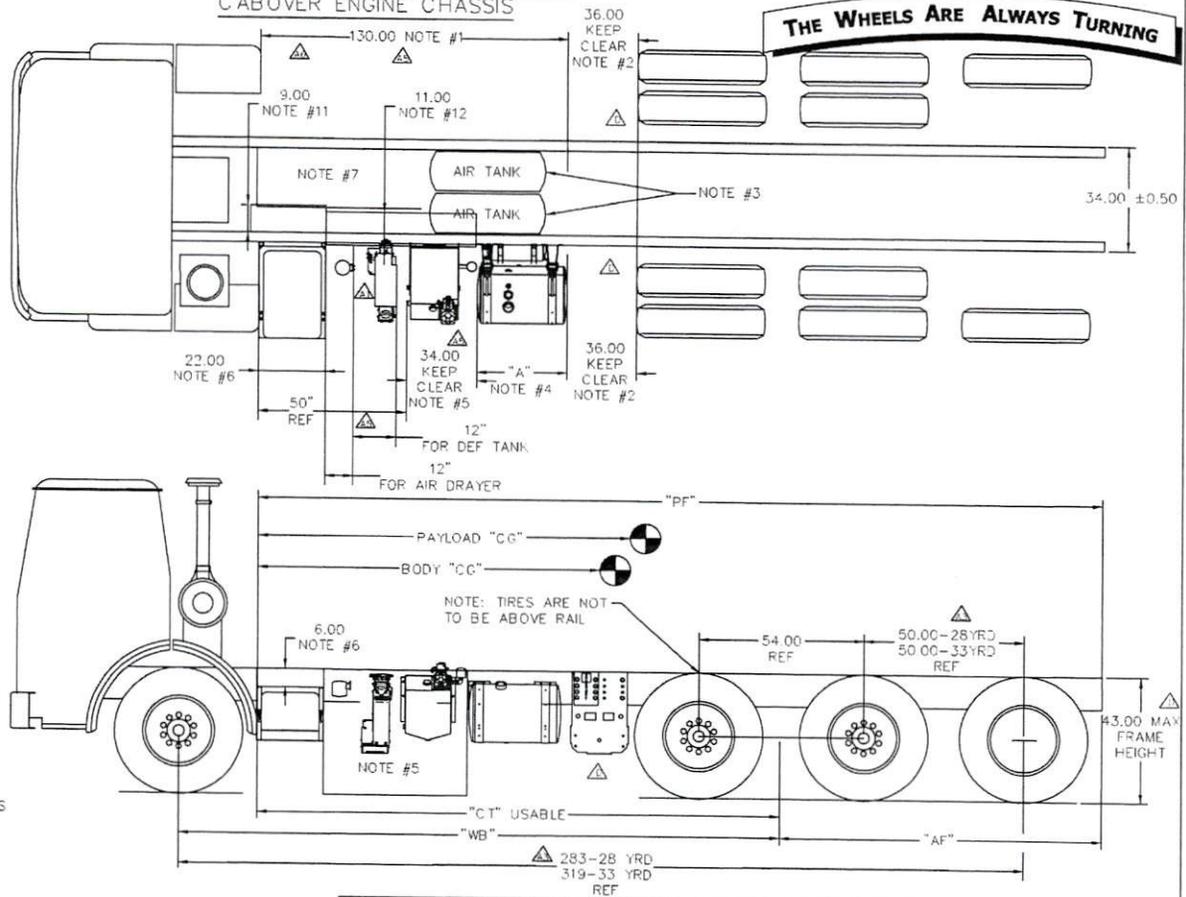
CHASSIS	EXHAUST		
	RIGHT HAND VERTICAL	LEFT HAND VERTICAL	HORIZONTAL
LEFT HAND DRIVE		●	●
RIGHT HAND DRIVE	●	●	●

REQUIRES A REAR WINDOW MIN. 15 X 50 WITH NO OBSTRUCTIONS INSIDE OR OUTSIDE TO VIEW CRABBER AREA.

CHASSIS LAYOUT REQUIREMENTS
 DURAPACK AUTOMATED SIDE LOADERS (RAPID RAIL LIFT)
 24, 28 & 33 YARD FULL EJECT OR SERVICE HOIST
 TANDEM AXLE UNITS WITH TAG AXLE
 CABOVER ENGINE CHASSIS



THE WHEELS ARE ALWAYS TURNING



REV	DESCRIPTION	DATE	ECO No.
D	ADDED SERVICE HOIST GEOMETRY, DIM ADDED & NOTE UPDATED	04-02-21	DPF21010
C	BODY SIZE TABLE UPDATED	07-30-20	DPF20083
B	BODY SIZE TABLE AND NOTE #3 UPDATED	08-09-19	DPF19053
A7	ELECTRICAL TABLE UPDATED (SHEET-02)	08-17-18	DPF18115
A6	DIM 48.00 REMOVED	08-17-18	DPF18115
A5	ADDED DIMENSIONS	08-17-18	DPF18115
A4	DIM 319 WAS 297 DIM 283 WAS 280	08-17-18	DPF18115
A3	DIM 50.00 WAS 55.00 DIM 50.00 WAS 52.00	08-17-18	DPF18115
A2	BODY SIZE TABLE & NOTE UPDATED	08-17-18	DPF18115
A1	ADDED AIR DRYER & DEF TANK	08-17-18	DPF18115
--	--	--	DPF15050
REV	WAS	DATE	ECO No.

SHEET 1 OF 2

HEIL ENVIRONMENTAL
 A DOVER COMPANY
 REV - D
 ECO DPF21010 701-9185

CHASSIS ELECTRICAL REQUIREMENTS:

- 1) NEUTRAL SIGNAL DEDICATED FOR BODY BUILDER USE-IN CAB
- 2) BRAKE SIGNAL DEDICATED FOR BODY BUILDER USE-IN CAB
- 3) R-STATOR SIGNAL DEDICATED FOR BODY BUILDER USE-IN CAB
- 4) BATTERY SHUT-OFF
- 5) 160 AMP ALTERNATOR-MINIMUM
- 6) THROTTLE LIMIT CAPABILITY FOR NON-OPERATE IN GEAR SYSTEM
- 7) 15 AMP CIRCUITS PER LIGHT FOR ALL LIGHTS
- 8) J1939 ACCESS IN CAB
- 9) "COMMON INTERFACE" SIGNALS IN CAB AS PER 800-0457

CHASSIS LAYOUT REQUIREMENTS
DURAPACK AUTOMATED SIDE LOADERS (RAPID RAIL LIFT)
28 & 33 YARD FULL EJECT OR SERVICE HOIST
TANDEM AXLE UNITS WITH TAG AXLE
CABOVER ENGINE CHASSIS



- ⚠
- 1) MUST BE RP170 COMPLIANT, IF POSSIBLE
 - 2) BRAKE AND TURN SIGNAL MUST BE SEPERATED

⚠

CHASSIS ELEC TRICAL REQUIREMENTS TABLE

CHASSIS INFORMATION	FMVSS SIGNALS AT BACK OF CAB INSIDE THE FRAME RAIL	COMMON INTERFACE	SEPARATE TURN AND BRAKE SIGNALS	MULTIPLEX PROGRAMMING FROM CHASSIS MANUFACTURER	NOTES:
MACK MRU/TE,LR ⚠	CONTROL LINK - SALES CODE M110003 FOR MR. B830030 FOR LR	CONTROL LINK II - SALES CODE M110003 FOR MR. B830030 FOR LR	STANDARD	N/A	M110003 GETS THE UPRIGHT CENTER PANEL. IF THE UPRIGHT CENTER PANEL IS NOT DESIRED THEN USE CODE B830030. WORK BRAKE CODE - 3KA41X. COOLER TUBE RELOCATION CODE - PTR_PKP
MACK GRANITE	BODY LINK III - SALES CODE B830026	N/A	STANDARD	N/A	THE FMVSS CONNECTOR FOR THE BODY LINK III IS DIFFERENT FROM THE ONE FOR THE CONTROL LINK.
AUTOCAR	RP170 CODE - 8742000	SAME	SAME	N/A	-
HINO	STANDARD - BUT COMBINED STOP/TURN	N/A		N/A	USES HEIL INSTALLED/DEVELOPED COMMON INTERFACE CABLE
INTERNATIONAL	ORDER CODE: 08HAB	N/A	N/A	CUSTOM	12V2A FOR CORRECT ENGINE/PTO
CCC	STANDARD	STANDARD	STANDARD	N/A	
UD	N/A	N/A	N/A	N/A	
FREIGHTLINER	SALES CODE: 33U-012	SAME	SAME	N/A	34C-001 GETS THE TRANSMISSION INTERFACE AT THE FRONT WALL (GRAY PLUG). 148-070 IS THE ENGINE SPEED CONTROL WITH FIXED SINGLE SPEED. LOCATED BEHIND THE DASH (163-006) WITHOUT ANY INTERLOCKS (87L-005) - USES HEIL INSTALLED/DEVELOPED COMMON INTERFACE
PETERBILT - 520	STANDARD - RP170	STANDARD RP170	STANDARD - RP170	N/A	
KENSWORTH	REQUIRES OPTIONAL BODY CONNECTOR	REQUIRES OPTIONAL REMOTE PTO HARNESS	ORDER CODE: 9072022	N/A	

CHASSIS INTEGRATION TABLE / LAYOUT CODES

AUTOCAR		MACK		PETERBILT	
NUMBER	DESCRIPTION	NUMBER	DESCRIPTION	NUMBER	DESCRIPTION
		PID 489 9030	FUEL TANK LOCATION, STREET SIDE, 104" FROM FRONT AXLE C/L		

SHEET 2 OF 2

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