



DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DEVELOPMENT SERVICES BUILDING

150 BEAVERCREEK ROAD OREGON CITY, OR 97045

3/30/2023	BCC Agenda Date/Item:
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Board of County Commissioners Clackamas County

Approval of a Board Order authorizing purchase of three 2024 Freightliner 114SD Trucks with Columbia dump bodies installed though a State of Oregon Cooperative Purchasing Agreement with Premier Truck Group of Portland. Total Contract Value is \$783,039. Funding is through the County Road Fund. No County General Funds are involved.

Previous Board	3/28/23: Discussion item at issues			
Action/Review				
Performance	- Build a strong infrastructure			
Clackamas				
Counsel Review	Yes	Procurement Review	Yes	
Contact Person	Warren Gadberry	Contact Phone	503-650-3988	

EXECUTIVE SUMMARY:

The Department of Transportation and Development, Transportation Maintenance Program has requested that Clackamas County Fleet Services purchase three (3) 2024 Freightliner 114SD Truck with Columbia dump bodies installed though the State of Oregon Cooperative Purchasing Agreement # 1640, with Premier Truck Group of Portland. These trucks are direct replacements for older vehicles in the fleet which are beyond their usable life and align with reducing diesel emissions (HB2007- State Diesel Policy).

PROCUREMENT PROCESS:

Approval of the purchase is being requested under the Local Contract Review Board Rule C-046-0400, Authority of Cooperative Procurements. The purchase will be made using cooperative contract #PA1640 from the State of Oregon Cooperative Purchasing Agreement Program from Premier Truck Group of Portland.

A notice of Intent to Purchase three (3) 2024 Freightliner 114SD Truck with Columbia dump bodies installed was issued on February 23, 2023. No comments were received at the time of closing on March 2, 2023.

	For Filin	g Use Onl	у	

RECOMMENDATION: Staff respectfully recommends the Board approve this purchase and authorizes Procurement staff to issue the PO on behalf of the County.

Respectfully submitted,

Dan Johnson

Dan Johnson Director of Transportation & Development

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF CLACKAMAS COUNTY, STATE OF OREGON

In the Matter of Approving Issuance of Purchase Order to Purchase Three (3) 2024 Freightliner 114SD Trucks



Whereas, the Clackamas County Board of County Commissioners (the "Board") has authority to sign all contracts and any amendments or renewals of the same:

Whereas, Oregon Revised Statutes ("ORS") 279A.200-220 and Local Contract Review Board Rule C-046-0400 permit Clackamas County to purchase goods or services using a cooperative procurement;

Whereas, the State of Oregon established a cooperative contract with PTG Oregon, LLC, dba Premier Truck Group, generally described as State of Oregon Cooperative Contract # PA1640;

Whereas, the Clackamas County Department of Transportation & Development desires to purchase three (3) 2024 Freightliner 114SD Trucks with Columbia dump bodies installed though the aforementioned State of Oregon cooperative contract, for a total contract price of \$783,039.00, as further detailed in the quote attached hereto as Exhibit A and incorporated by this reference herein;

Whereas, the Clackamas County Department of Finance requests authority to utilize the State of Oregon cooperative contract to purchase the aforementioned vehicles by issuance of a purchase order ("PO");

Whereas, a PO is issued directly through the Department of Finance's management software with no signature required or available;

NOW THEREFORE, the Clackamas County Board of County Commissioners order as follows:

- 1. The requested use of State of Oregon Cooperative Contract # PA1640 to purchase the aforementioned vehicles, in the amount of \$783,039.00, is hereby approved; and
- The Clackamas County Department of Finance is hereby delegated limited authority to issue a PO to purchase the aforementioned vehicles using the State of Oregon cooperative contract.

DATED this	_ day of	, 2023
BOARD OF CO	UNTY COMM	IISSIONERS
Chair		
Recording Secre	etary	

Prepared by:
 Dylan Dripps
PREMIER TRUCK GROUP OF
 PORTLAND
9622 N.E. VANCOUVER WAY
 PORTLAND, OR 97211
 Phone: 503-283-0345

A proposal for CLACKAMAS COUNTY through DEPARTMENT OF ADMINISTRATIVE SERVICES PA1640

Prepared by **PREMIER TRUCK GROUP OF PORTLAND**Dylan Dripps

Jan 10, 2023

2024 Freightliner 114SD
Base 114SD DD13 contract Price \$96,588.00
Options to Base \$56,862.00 less 12% \$50,039.00
Additional PTG Discount (-\$6,035.00)
Add Columbia Body quote 2K22109 \$111,000.00
Add Standard Warranty \$8,205.00
Add est. OR CAT Tax \$1,216.00
Package Price per unit \$261,013.00



Components shown may not reflect all spec'd options and are not to scale



Oreogn City, OR 97045 Phone: 503-742-4400 Prepared by:
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PORTLAND, OR 97211
Phone: 503-283-0345

QUOTATION

114SD PLUS CONVENTIONAL CHASSIS

SET BACK AXLE - TRUCK

DETROIT DD13 GEN 5 12.8L 505 HP @ 1625 RPM, 1900 GOV RPM, 1850 LB/FT @ 975 RPM

ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION

RT-46-160P 46,000# R-SERIES TANDEM REAR AXLE TUFTRAC GEN2 46,000# REAR SPRING SUSPENSION DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE

20,000# TAPERLEAF FRONT SUSPENSION 114 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB 5475MM (216 INCH) WHEELBASE 1/2X3.64X11-7/8 INCH STEEL FRAME (12.7MMX301.6MM/0.5X11.88 INCH) 120KSI 1600MM (63 INCH) REAR FRAME OVERHANG 1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT

TEM TO EVALUATE AND INSTALL FRAME RAIL
REINFORCEMENT AS NEEDED FOR FRONT
FRAME MOUNTED EQUIPMENT

HENDRICKSON EX13 COMP 13,500# FF1 STEERABLE 15X4 BRAKE INTEGRAL PUSHER AXL

			PER UNIT		TOTAL
VEHICLE PRICE	TOTAL # OF UNITS (1)	\$	140,592	\$	140,592
EXTENDED WARRANTY		\$	8,205	\$	8,205
DEALER INSTALLED OPTIONS		\$	111,000	\$	111,000
CUSTOMER PRICE BEFORE TAX		\$	259,797	\$	259,797
TAXES AND FEES					
EST. OR CAT TAX		\$	1,216	\$	1,216
OTHER CHARGES		\$	0	\$	0
TRADE-IN					
TRADE-IN ALLOWANCE		\$	(0)	\$	(0)
BALANCE DUE	(LOCAL CURRENCY)	\$	261,013	\$	261,013
COMMENTS:					
Projected delivery on / provided the c	order is received before _	/	_/		
APPROVAL:					
Please indicate your acceptance of this quotation by	y signing below:				
Customer: X	Date: / _	/			
Deline out Index	ocal dealer for a competitive at Information@dtfoffers.co		om Daimler Tru	ick Fina	ancial, or

Daimler Truck Financial offers a variety of finance, lease and insurance solutions to fit your business needs. For more information about our products and services, visit our website at www.daimler-truckfinancial.com.

Application Version 11.7.705 Data Version PRL-27D.024 Clackamas County Dump 114 PLUS

Financing that works for you.



01/10/2023 2:42 PM

Prepared by:
Dylan Dripps
PREMIER TRUCK GROUP OF
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9622 N.E. VANCOUVER WAY
PORTLAND, OR 97211
Phone: 503-283-0345

SPECIFICATION PROPOSAL

Data Code	Description	Weight Front	Weight Rear	
Price Level				
PRL-27D	SD PRL-27D (EFF:MY24 ORDERS)			
Data Version				
DRL-024	SPECPRO21 DATA RELEASE VER 024			
Vehicle Configurat	ion			
001-177	114SD PLUS CONVENTIONAL CHASSIS	7,934	6,476	
004-224	2024 MODEL YEAR SPECIFIED			
002-004	SET BACK AXLE - TRUCK	480	-480	
019-006	TRAILER TOWING PROVISION AT END OF FRAME WITH SAE J560	10	10	
003-001	LH PRIMARY STEERING LOCATION			
General Service				
AA1-003	TRUCK/TRAILER CONFIGURATION			
AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)			
A85-011	CONSTRUCTION SERVICE			
A84-1GM	GOVERNMENT BUSINESS SEGMENT			
AA4-010	DIRT/SAND/ROCK COMMODITY			
AA5-006	TERRAIN/DUTY: 10% (SOME) OF THE TIME, IN TRANSIT, IS SPENT ON NON-PAVED ROADS			
AB1-008	MAXIMUM 8% EXPECTED GRADE			
AB5-003	MAINTAINED GRAVEL OR CRUSHED ROCK - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE			
995-1AE	FREIGHTLINER LEVEL II WARRANTY			
A66-99D	EXPECTED FRONT AXLE(S) LOAD: 20000.0 lbs			
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD: 46000.0 lbs			
A67-99D	EXPECTED PUSHER AXLE(S) LOAD: 13000.0 lbs			
A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 79000.0 lbs			
A70-99D	EXPECTED GROSS COMBINATION WEIGHT: 90000.0 lbs			
Truck Service				
AA3-018	FRONT PLOW/END DUMP BODY			



AF3-2C2

COLUMBIA BODY

Oreogn City, OR 97045 Phone: 503-742-4400

	Data Code	Description	Weight Front	Weight Rear
Tractor	Service			
	AH6-001	SINGLE (1) TRAILER		
Engine				
	101-3C1	DETROIT DD13 GEN 5 12.8L 505 HP @ 1625 RPM, 1900 GOV RPM, 1850 LB/FT @ 975 RPM		
Electro	nic Paramete	rs		
	79A-070	70 MPH ROAD SPEED LIMIT		
	79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
	79F-013	FLEET MANAGEMENT - DAILY ENGINE USAGE ENABLED		
	79K-014	PTO MODE ENGINE RPM LIMIT - 1800 RPM		
	80S-015	PTO 1, C/F PTO, NO SWITCH, TEM SUPPLIED REQUEST, FEEDBACK AND INTERLOCKS, WITH PTO CONNECTIONS, ROLLING		
	80T-013	PTO 2, C/F PTO, NO SWITCH, TEM SUPPLIED REQUEST, FEEDBACK AND INTERLOCKS, WITH PTO CONNECTIONS		
Engine	Equipment			
	99C-021	2010 EPA/CARB/GHG21 CONFIGURATION		
	99D-011	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD CORNER OF DRIVER DOOR)		
	13E-001	STANDARD OIL PAN		
	105-001	ENGINE MOUNTED OIL CHECK AND FILL		
	014-108	SIDE OF HOOD AIR INTAKE WITH FIREWALL MOUNTED DONALDSON AIR CLEANER WITH SAFETY ELEMENT AND INSIDE/OUTSIDE AIR WITH SNOW DOOR	10	
	124-1DJ	DR 12V 160 AMP 36-SI BRUSHLESS QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE	10	
	292-236	(3) DTNA GENUINE, FLOODED STARTING, MIN 3000CCA, 555RC, THREADED STUD BATTERIES		
	290-017	BATTERY BOX FRAME MOUNTED		
	281-001	STANDARD BATTERY JUMPERS		
	282-001	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB		
	291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
	289-001	NON-POLISHED BATTERY BOX COVER		



Data Code	Description	Weight Front	Weight Rear	
293-058	POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	2		
295-029	POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	2		
306-015	PROGRESSIVE LOW VOLTAGE DISCONNECT AT 12.3 VOLTS FOR DESIGNATED CIRCUITS			
107-046	BW MODEL FE-921 19.0 CFM SINGLE CYLINDER AIR COMPRESSOR WITH SAFETY VALVE			
152-040	ELECTRONIC ENGINE INTEGRAL WARNING AND DERATE PROTECTION SYSTEM			
128-002	JACOBS COMPRESSION BRAKE			
016-1C2	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	30	25	
28F-014	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER			
239-026	10 FOOT 06 INCH (126 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT			
233-017	STANDARD CURVE BRIGHT UPPER STACK(S)			
237-1CR	RH CURVED VERTICAL TAILPIPE B-PILLAR MOUNTED ROUTED FROM STEP			
23U-002	13 GALLON DIESEL EXHAUST FLUID TANK			
30N-003	100 PERCENT DIESEL EXHAUST FLUID FILL			
23Y-001	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING			
43X-002	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION			
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP			
242-001	STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD			
273-058	AIR POWERED ON/OFF ENGINE FAN CLUTCH			
276-001	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED			
110-068	DDC SUPPLIED ENGINE MOUNTED FUEL FILTER/FUEL WATER SEPARATOR WITH WATER-IN-FUEL INDICATOR			
118-001	FULL FLOW OIL FILTER			
266-107	1400 SQUARE INCH VOCATIONAL RADIATOR	-15		
103-039	ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT			



	Data Code	Description	Weight Front	Weight Rear	
	171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT			
	172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES			
	270-023	HDEP FIXED RATIO COOLANT PUMP AND RADIATOR DRAIN VALVE			
	138-005	PHILLIPS-TEMRO 1500 WATT/115 VOLT BLOCK HEATER	4		
	140-022	CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR			
	155-075	MITSUBISHI 12V MOD 3.175-DP60 STARTER WITH INTEGRATED MAGNETIC SWITCH			
Transm	nission				
	342-1M3	ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	260	100	
Transm	nission Equip	ment			
	343-339	ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV			
	84B-012	ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES			
	84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY			
	84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY			
	84E-013	S1 PERFORMANCE PRIMARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY			
	84F-012	S1 PERFORMANCE SECONDARY SHIFT SCHEDULE, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY			
	84G-007	1700 RPM PRIMARY MODE SHIFT SPEED			
	84H-007	1700 RPM SECONDARY MODE SHIFT SPEED			
	84N-200	FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED			
	84U-000	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES			
	85E-011	MAXIMUM ENGINE SPEED FOR PTO ENGAGEMENT 1000 RPM			
	85F-035	MAXIMUM ENGINE SPEED FOR PTO OPERATION 2050 RPM			



Da	ita Code	Description	Weight Front	Weight Rear
850	G-039	MAXIMUM OUTPUT SPEED FOR PTO ENGAGEMENT 1000 RPM		
851	H-095	MAXIMUM OUTPUT SPEED FOR PTO OPERATION 2400 RPM - ALLISON 5TH GEN TRANSMISSIONS		
350	3-073	QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH CAP		
340	C-011	ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR		
362	2-824	(2) CUSTOMER INSTALLED CHELSEA 280 SERIES PTO'S		
363	3-010	PTO MOUNTING, LH SIDE AND TOP RH SIDE OF MAIN TRANSMISSION ALLISON		
34	1-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
34	5-003	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED		
970	G-004	TRANSMISSION PROGNOSTICS - ENABLED 2013		
370	0-011	WATER TO OIL TRANSMISSION COOLER, FRAME MOUNTED		
346	6-003	TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK		
35	T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		
Front Axle	and Equip	ment		
400	0-1BB	DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190	
402	2-075	BENDIX ADB22X AIR DISC FRONT BRAKES	30	
403	3-002	NON-ASBESTOS FRONT BRAKE LINING		
419	9-004	FRONT DISC BRAKE ROTORS		
42	7-001	FRONT BRAKE DUST SHIELDS	5	
409	9-006	FRONT OIL SEALS		
408	8-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		
416	6-022	STANDARD SPINDLE NUTS FOR ALL AXLES		
405	5-030	FRONT AIR DISC BRAKE INTERNAL ADJUSTERS		
406	6-001	STANDARD KING PIN BUSHINGS		
530	6-055	TRW THP-60 POWER STEERING WITH RCH45 AUXILIARY GEAR	130	
539	9-003	POWER STEERING PUMP		
534	4-003	4 QUART POWER STEERING RESERVOIR		



Data Code	Description	Weight Front	Weight Rear	
533-001	OIL/AIR POWER STEERING COOLER			
40T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE			
Front Suspension				
620-025	20,000# TAPERLEAF FRONT SUSPENSION	200		
619-004	GRAPHITE BRONZE BUSHINGS WITH SEALS - FRONT SUSPENSION			
410-001	FRONT SHOCK ABSORBERS			
Rear Axle and Equip	pment			
420-111	RT-46-160P 46,000# R-SERIES TANDEM REAR AXLE		450	
421-456	4.56 REAR AXLE RATIO			
424-001	IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING			
386-075	MXL 18T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	-10	-10	
388-073	MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES			
452-006	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		30	
878-023	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD- REAR AND REAR-REAR AXLE VALVE			
87A-012	INDICATOR LIGHT FOR EACH INTERAXLE LOCKOUT SWITCH WITH IAD FEEDBACK			
87B-024	INDICATOR LIGHT FOR EACH DIFFERENTIAL LOCKOUT SWITCH, ENGAGE AT SPEEDS 5 MPH OR LESS, DISENGAGE W/IGN OFF OR SPEEDS EXCEEDING 25 MPH			
423-075	BENDIX ADB22X AIR DISC REAR BRAKES		-60	
433-002	NON-ASBESTOS REAR BRAKE LINING			
434-011	BRAKE CAMS AND CHAMBERS ON FORWARD SIDE OF DRIVE AXLE(S)			
451-005	REAR DISC BRAKE ROTORS			
425-002	REAR BRAKE DUST SHIELDS		10	
440-006	REAR OIL SEALS			
426-094	AIR DISC LONGSTROKE 2-DRIVE AXLES SPRING PARKING CHAMBERS			
428-030	REAR AIR DISC BRAKE INTERNAL ADJUSTERS			
41T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE			
42T-001	STANDARD REAR AXLE BREATHER(S)			



Oreogn City, OR 97045 Phone: 503-742-4400

Data Code	Description	Weight Front	Weight Rear	
Rear Suspension				
622-298	TUFTRAC GEN2 46,000# REAR SPRING SUSPENSION		490	
621-108	9.5 INCH NOMINAL RIDE HEIGHT (460MM GLOBAL REFERENCE HEIGHT)			
431-003	AXLE CLAMPING GROUP			
624-025	55 INCH AXLE SPACING			
623-006	FORE/AFT AND TRANSVERSE CONTROL RODS			
439-002	REAR SHOCK ABSORBERS - TWO AXLES (TANDEM)		40	
Pusher / Tag Equip	pment			
035-128	HENDRICKSON EX13 COMP 13,500# AIR LIFT STEERABLE PUSHER SUSPENSION, 15X4 BRAKES, FF1 AXLE	460	860	
443-126	HENDRICKSON EX13 COMP 13,500# FF1 STEERABLE 15X4 BRAKE INTEGRAL PUSHER AXLE			
874-015	(1) DASH VALVE AND (1) GAUGE FOR SINGLE LIFT AXLE			
87F-005	LIFT AXLE WIRING, LIFT IN REVERSE, WITH LAST STATE RETENTION WITH IGNITION OFF			
896-014	(1)REGULATOR MOUNTED ON CHASSIS FOR SINGLE LIFT AXLE			
456-1AE	HENDRICKSON 15X4 CAM PUSHER/TAG BRAKES, DOUBLE ANCHOR, FABRICATED SHOES			
457-002	NON-ASBESTOS PUSHER/TAG BRAKE LINING			
448-023	CONMET CAST IRON PUSHER/TAG BRAKE DRUMS			
429-998	NO PUSHER/TAG BRAKE DUST SHIELDS			
442-016	PUSHER/TAG OIL SEALS			
444-001	VENTED PUSHER/TAG HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL			
445-075	HALDEX LONGSTROKE PUSHER/TAG AXLE SERVICE CHAMBERS			
458-003	HALDEX AUTOMATIC PUSHER/TAG SLACK ADJUSTERS			
626-131	HENDRICKSON EX13 COMP 13,500# AIR LIFT STEERABLE PUSHER SUSPENSION			
* 627-002	54 INCH AXLE SPACING PUSHER/TAG			
	60 INCH AXLE SPACING PUSHER/TAG.			

Brake System



Prepared by:
Dylan Dripps
PREMIER TRUCK GROUP OF
PORTLAND
9622 N.E. VANCOUVER WAY
PORTLAND, OR 97211
Phone: 503-283-0345

	Data Code	Description	Weight Front	Weight Rear	
_	490-1AU	WABCO 4S/4M ABS WITH TRACTION CONTROL WITH ATC SHUT OFF SWITCH			
	871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES			
	904-001	FIBER BRAID PARKING BRAKE HOSE			
	412-001	STANDARD BRAKE SYSTEM VALVES			
	46D-002	STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM			
	413-002	STD U.S. FRONT BRAKE VALVE			
	432-021	(2) 3-4.5 PSI RELAY VALVES, ONE FOR TANDEM AXLE AND ONE FOR PUSHER/TAG			
	480-088	WABCO SYSTEM SAVER HP WITH INTEGRAL AIR GOVERNOR AND HEATER			
	479-015	AIR DRYER FRAME MOUNTED			
	460-058	STEEL AIR TANKS MOUNTED AFT INSIDE AND/OR BELOW FRAME JUST FORWARD OF REAR SUSPENSION			
	477-004	PULL CABLES ON ALL AIR RESERVOIR(S)			
	485-001	EXTERNAL CHARGING GLADHAND	5		
	Trailer Connections				
Ī	914-001	AIR CONNECTIONS TO END OF FRAME WITH GLAD HANDS FOR TRUCK AND NO DUST COVERS			
	296-010	PRIMARY CONNECTOR/RECEPTACLE WIRED FOR SEPARATE STOP/TURN, ABS CENTER PIN POWERED THROUGH IGNITION			
	303-025	SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE MOUNTED END OF FRAME			
	Wheelbase & Frame				
	545-547	5475MM (216 INCH) WHEELBASE			
	546-1B2	1/2X3.64X11-7/8 INCH STEEL FRAME (12.7MMX301.6MM/0.5X11.88 INCH) 120KSI	500	190	
	547-001	1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT	208	403	
	548-803	TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT			
	552-030	1600MM (63 INCH) REAR FRAME OVERHANG			
	55W-006	FRAME OVERHANG RANGE: 61 INCH TO 70 INCH			
	549-002	24 INCH INTEGRAL FRONT FRAME EXTENSION	140	-20	



CALC'D BACK OF CAB TO REAR SUSP C/L (CA):

AC8-99D

150.0 in

Oreogn City, OR 97045 Phone: 503-742-4400

[Data Code	Description	Weight Front	Weight Rear
P	\E8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA): 136.22 in		
A	AE4-99D	CALC'D FRAME LENGTH - OVERALL: 348.15 in		
F	FSS-0LH	CALCULATED FRAME SPACE LH SIDE: 9.12 in		
F	SS-0RH	CALCULATED FRAME SPACE RH SIDE: 49.72 in		
5	553-001	SQUARE END OF FRAME		
5	550-001	FRONT CLOSING CROSSMEMBER		
5	559-001	STANDARD WEIGHT ENGINE CROSSMEMBER		
5	562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
5	572-001	STANDARD REARMOST CROSSMEMBER		
5	565-002	HEAVY DUTY SUSPENSION CROSSMEMBER		30
Chassis	Equipment			
5	556-997	OMIT FRONT BUMPER, CUSTOMER INSTALLED SPECIAL BUMPER, DOES NOT COMPLY WITH FMCSR 393.203	-100	
5	558-001	FRONT TOW HOOKS - FRAME MOUNTED	15	
5	551-002	HUCK-SPIN ROUND COLLAR CHASSIS FASTENERS		
4	14Z-002	EXTERIOR HARNESSES WRAPPED IN ABRASION TAPE		
Fuel Tani	ks			
2	204-219	70 GALLON/264 LITER RECTANGULAR ALUMINUM FUEL TANK - LH	15	5
2	218-005	RECTANGULAR FUEL TANK(S)		
2	215-005	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		
2	212-007	FUEL TANK(S) FORWARD		
6	664-001	PLAIN STEP FINISH		
2	205-001	FUEL TANK CAP(S)		
1	I22-1K3	DAVCO 487 FUEL/WATER SEPARATOR WITH ESOC	15	
2	216-020	EQUIFLO INBOARD FUEL SYSTEM		
2	202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
Tires				
C)93-0TA	MICHELIN XZY-3 385/65R22.5 18 PLY RADIAL FRONT TIRES	130	
C)94-13T	MICHELIN X WORKS D 11R22.5 16 PLY RADIAL REAR TIRES		248



	Data Code	Description	Weight Front	Weight Rear	
	095-0BN	MICHELIN XZE 255/70R22.5 16 PLY RADIAL PUSHER/TAG TIRES		-34	
Hubs					
	418-060	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS			
	450-060	CONMET PRESET PLUS PREMIUM IRON REAR HUBS			
	449-060	CONMET PRESET PLUS PREMIUM IRON PUSHER/TAG HUBS			
Wheels	5				
	502-574	ACCURIDE 29807 22.5X12.25 10-HUB PILOT 4.75 INSET 5-HAND STEEL DISC FRONT WHEELS	98		
	505-428	ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2- HAND HD STEEL DISC REAR WHEELS		104	
	509-428	ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2- HAND HD STEEL DISC PUSHER/TAG WHEELS		26	
	496-011	FRONT WHEEL MOUNTING NUTS			
	497-011	REAR WHEEL MOUNTING NUTS			
	495-011	PUSHER/TAG WHEEL MTG NUTS			
Cab Ex	terior				
	829-1A2	114 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB			
	650-008	AIR CAB MOUNTING			
	705-012	CAB ROOF REINFORCEMENTS FOR ROOF MOUNTED COMPONENTS	2		
	648-002	NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE			
	667-037	SHORT FENDER WITH MUDFLAP			
	754-017	BOLT-ON MOLDED FLEXIBLE FENDER EXTENSIONS	10		
	678-018	LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT			
	645-002	BRIGHT FINISH RADIATOR SHELL/HOOD BEZEL			
	646-042	STATIONARY BLACK GRILLE WITH BRIGHT ACCENTS			
	65X-003	CHROME HOOD MOUNTED AIR INTAKE GRILLE			
	644-004	FIBERGLASS HOOD			
	690-016	CAB FLOOR, TOE BOARD AND FIREWALL HEAT SHIELD	5		
	727-1AF	SINGLE 14 INCH ROUND HADLEY AIR HORN UNDER LH DECK			



	Data Code	Description	Weight Front	Weight Rear	
	726-001	SINGLE ELECTRIC HORN			
	728-001	SINGLE HORN SHIELD			
	575-001	REAR LICENSE PLATE MOUNT END OF FRAME			
	312-067	HALOGEN COMPOSITE HEADLAMPS WITH BRIGHT BEZELS			
	302-047	LED AERODYNAMIC MARKER LIGHTS			
	314-824	WIRING AND SWITCH FOR CUSTOMER FURNISHED SNOW PLOW LAMPS WITH DUAL CONNECTIONS AT BUMPER			
	311-001	DAYTIME RUNNING LIGHTS			
	294-001	INTEGRAL STOP/TAIL/BACKUP LIGHTS			
	300-015	STANDARD FRONT TURN SIGNAL LAMPS			
	744-1BC	DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE			
	797-001	DOOR MOUNTED MIRRORS			
	796-001	102 INCH EQUIPMENT WIDTH			
	743-204	LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS			
	729-001	STANDARD SIDE/REAR REFLECTORS			
	677-053	RH AFTERTREATMENT SYSTEM CAB ACCESS WITH PLAIN SHIELDING			
	768-043	63X14 INCH TINTED REAR WINDOW			
	661-004	TINTED DOOR GLASS LH AND RH WITH TINTED OPERATING WING WINDOWS			
	654-011	RH AND LH ELECTRIC POWERED WINDOWS	4	4	
	769-002	LOWER RH DOOR WINDOW WITH FRESNEL LENS	7		
N	663-029	1-PIECE BONDED HEATED WIPER PARK SOLAR GREEN GLASS WINDSHIELD			
	659-019	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED			
Ca	ab Interior				
	055-019	RUGGED TRIM PACKAGE			
	707-107	GRAY & CARBON VINYL INTERIOR "RUGGED"			
	70K-020	CARBON WITH PREMIUM GUNMETAL ACCENT (RUGGED)			
	706-013	MOLDED PLASTIC DOOR PANEL			
	708-013	MOLDED PLASTIC DOOR PANEL			
	772-006	BLACK MATS WITH SINGLE INSULATION			



Data Code	Description	Weight Front	Weight Rear	
785-023	ASH CUP AND LIGHTER			
691-001	FORWARD ROOF MOUNTED CONSOLE			
696-012	CENTER STORAGE CONSOLE MOUNTED ON BACKWALL	20		
693-035	LH AND RH KICKPLATES			
738-021	DIGITAL ALARM CLOCK IN DRIVER DISPLAY			
742-007	(2) CUP HOLDERS LH AND RH DASH			
680-029	M2/SD DASH			
720-003	5 LB. FIRE EXTINGUISHER	10		
700-002	HEATER, DEFROSTER AND AIR CONDITIONER			
701-008	STANDARD HVAC DUCTING WITH SNOW SHIELD FOR FRESH AIR INTAKE			
703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH			
170-015	STANDARD HEATER PLUMBING			
130-041	VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR			
702-002	BINARY CONTROL, R-134A			
739-034	PREMIUM INSULATION			
285-013	SOLID-STATE CIRCUIT PROTECTION AND FUSES			
280-007	12V NEGATIVE GROUND ELECTRICAL SYSTEM			
324-1B3	STANDARD LED CAB LIGHTING			
657-1AV	ALL UNIT(S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1009			
78G-004	KEY QUANTITY OF 4			
655-005	LH AND RH ELECTRIC DOOR LOCKS			
722-002	TRIANGULAR REFLECTORS WITHOUT FLARES	10		
756-339	PREMIUM ISRINGHAUSEN HIGH BACK AIR SUSPENSION DRIVERS SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	70		
760-338	BASIC ISRINGHAUSEN HIGH BACK AIR SUSPENSION PASSENGER SEAT WTIH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	25	10	
759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8		
711-004	LH AND RH INTEGRAL DOOR PANEL ARMRESTS			
758-022	BLACK MORDURA CLOTH DRIVER SEAT COVER			
761-023	BLACK MORDURA CLOTH PASSENGER SEAT COVER			



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Data Code	Description	Weight Front	Weight Rear	
763-101	BLACK SEAT BELTS			
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	10		
540-070	4-SPOKE 18 INCH (450MM) LEATHER WRAPPED STEERING WHEEL WITH CHROME SWITCH BEZELS			
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS			
Instruments & Contr	ols			
81B-003	DIGITAL PANEL LAMP DIMMER SWITCH IN DRIVER DISPLAY			
106-002	ELECTRONIC ACCELERATOR CONTROL			
732-998	NO INSTRUMENT PANEL-DRIVER			
734-022	FULLY CONFIGURABLE CENTER INSTRUMENT PANELS			
870-002	BRIGHT ARGENT FINISH GAUGE BEZELS			
486-001	LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM			
838-001	(1) SINGLE BRAKE APPLICATION AIR GAUGE			
840-001	DUAL NEEDLE PRIMARY AND SECONDARY AIR PRESSURE GAUGE			
198-025	INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS			
721-003	87 DECIBELS TO 112 DECIBELS AUTOMATIC SELF-ADJUSTING BACKUP ALARM		3	
149-015	ELECTRONIC CRUISE CONTROL WITH CONTROLS ON STEERING WHEEL SPOKES			
156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY			
811-044	PREMIUM INSTRUMENT CLUSTER WITH 5.0 INCH TFT COLOR DISPLAY			
160-038	HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH			
844-001	2 INCH ELECTRIC FUEL GAUGE			
845-011	FUEL FILTER RESTRICTION INDICATOR			
148-073	ENGINE REMOTE INTERFACE FOR REMOTE THROTTLE			
48H-003	QUICKFIT POWERTRAIN INTERFACE CONNECTOR UNDER CAB WITH CAPS			
48C-003	QUICKFIT PROGRAMMABLE INTERFACE CONNECTOR(S) UNDER CAB WITH CAP			



Data Code	Description	Weight Front	Weight Rear	
163-014	ENGINE REMOTE INTERFACE CONNECTOR AT POWERTRAIN INTERFACE CONNECTOR			
856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE			
854-008	DIGITAL ENGINE OIL TEMPERATURE IN DRIVER DISPLAY			
864-001	2 INCH TRANSMISSION OIL TEMPERATURE GAUGE			
867-004	ELECTRONIC OUTSIDE TEMPERATURE SENSOR DISPLAY IN DRIVER MESSAGE CENTER			
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY			
372-123	PTO CONTROLS FOR ENHANCED VEHICLE ELECTRIC/ELECTRONIC ARCHITECTURE			
49B-004	ELECTRONIC STABILITY CONTROL			
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE			
679-024	LEFTHAND/CENTER/RIGHTHAND OVERHEAD INSTRUMENT PANEL BLANK			
35M-010	QUICKFIT PROGRAMMABLE INTERFACE MODULE	10		
746-137	AM/FM/WB WORLD TUNER RADIO WITH BLUETOOTH, USB AND AUXILIARY INPUTS, J1939	10		
747-001	DASH MOUNTED RADIO			
750-002	(2) RADIO SPEAKERS IN CAB			
748-006	POWER AND GROUND WIRING PROVISION OVERHEAD			
749-006	TOP OF DASH MOUNT CB RADIO PROVISION WITH PLATE AND STRAPS	2		
752-017	MULTI-BAND AM/FM/WB/CB LH MIRROR MOUNTED ANTENNA SYSTEM			
74D-006	STANDARD RADIO WIRING WITH STEERING WHEEL CONTROLS			
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER			
817-001	STANDARD VEHICLE SPEED SENSOR			
812-001	ELECTRONIC 3000 RPM TACHOMETER			
813-1C8	DETROIT CONNECT PLATFORM HARDWARE			
8D1-203	3 YEARS DETROIT CONNECT BASE PACKAGE (FEATURES VARY BY MODEL) DETROIT CONNECT PLATFORM			



	Data Code	Description	Weight Front	Weight Rear
	6TS-005	TMC RP1226 ACCESSORY CONNECTOR LOCATED BEHIND PASSENGER SIDE REMOVEABLE DASH PANEL		
	162-002	IGNITION SWITCH CONTROLLED ENGINE STOP		
	329-129	FOUR EXTRA HARDWIRED SWITCHES IN DASH, ROUTE TO UNDER CAB, BLUNTCUT		
	4C1-025	HARDWIRE SWITCH #1, ON/OFF LATCHING, 20 AMPS IGNITION POWER		
	4C2-025	HARDWIRE SWITCH #2, ON/OFF LATCHING, 20 AMPS IGNITION POWER		
	4C3-017	HARDWIRE SWITCH #3,ON/OFF LATCHING, 10 AMPS BATTERY POWER		
	4C4-017	HARDWIRE SWITCH #4,ON/OFF LATCHING, 10 AMPS BATTERY POWER		
	264-030	(1) OVERHEAD MOUNTED LANYARD CONTROL FOR DRIVER AIR HORN		
	482-001	BW TRACTOR PROTECTION VALVE		
	883-001	TRAILER HAND CONTROL BRAKE VALVE		
	836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
	660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
	304-030	ROTARY HEADLAMP SWITCH, MARKER LIGHTS/HEADLIGHTS SWITCH WITH PULL OUT FOR OPTIONAL FOG/ROAD LAMPS		
	882-004	TWO VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR		
	299-020	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, HEADLAMP FLASH, WASH/WIPE/INTERMITTENT		
	298-046	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH 40 AMP (20 AMP PER SIDE) TRAILER LAMP CAPACITY		
Design				
	065-000	PAINT: ONE SOLID COLOR		
Color				
	980-5F6	CAB COLOR A: L0006EY WHITE ELITE EY		
	986-020	BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT		
	962-976	POWDER BLACK (N0001EA) FRONT WHEELS/RIMS (PKBLK21, BK, PB1)		
	966-976	POWDER BLACK (N0001EA) REAR WHEELS/RIMS (PKBLK21, BK, PB1)		



Rd

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PORTLAND, OR 97211
Phone: 503-283-0345

Data Code	Description	Weight Front	Weight Rear	
96E-976	POWDER BLACK (N0001EA) PUSHER/TAG WHEELS/RIMS (PKBLK21, BK, PB1)			
963-003	STANDARD E COAT/UNDERCOATING			
Certification / Comp	pliance			
996-001	U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS			
Secondary Factory Options				
999-063	DEALER ADVISED/ACCEPTS ESC ON END OF FRAME TOWING FOR TRACTOR FOR YARD HAUL USE			
Sales Programs				
	NO SALES PROGRAMS HAVE BEEN SELECTED			

TOTAL VEHICLE SUMMARY

Weight Summary				
	Weight Front	Weight Rear	Total Weight	
Factory Weight ⁺	10961 lbs	8910 lbs	19871 lbs	
Total Weight ⁺	10961 lbs	8910 lbs	19871 lbs	

Extended Warranty

WAI-61X EW4: DD13HT CARB22 VOC 7 YEARS/250,000 MILES/402,500 KM.

EXTENDED ENGINE COVERAGE. FEX APPLIES

WAG-074 TOWING: 1 YEAR/UNLIMITED MILES/KM EXTENDED

TOWING COVERAGE \$750 CAP FEX APPLIES

(+) Weights shown are estimates only.

If weight is critical, contact Customer Application Engineering.



PLUS

Prepared by:
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(***) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.



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DIMENSIONS 133 in 150 in 71.38 in 71.38 in √ 43.63 in √ 43.

VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model	114SD
Wheelbase (545)	5475MM (216 INCH) WHEELBASE
Rear Frame Overhang (552)	1600MM (63 INCH) REAR FRAME OVERHANG
Fifth Wheel (578)	NO FIFTH WHEEL
	NO FIFTH WHEEL LOCATION
Maximum Forward Position (in)	0
	0
Amount of Slide Travel (in)	0
Slide Increment (in)	0
Desired Slide Position (in)	0.0
Cab Size (829)	114 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Sleeper (682)	NO SLEEPER BOX/SLEEPERCAB
Exhaust System (016)RH OUTBOARD UNDER STEP M	OUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY

TABLE SUMMARY - DIMENSIONS



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Phone: 503-283-0345

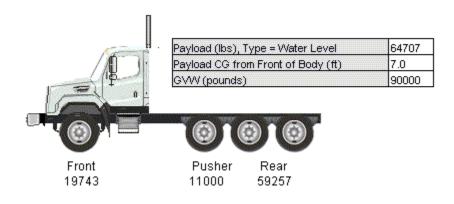
Dimensions	Inches
Bumper to Back of Cab (BBC)	132.9
Bumper to Centerline of Front Axle (BA)	67.3
Front Axle to Back of Cab (AC)	65.6
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	150.0
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	136.2
Back of Cab Protrusions (Exhaust/Intake) (CP)	15.8
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	13.8
Back of Cab to End of Frame	213.0
Cab Height (CH)	71.4
Wheelbase (WB)	215.6
Frame Overhang (OH)	63.0
Overall Frame Length	348.1
Overall Length (OAL)	345.8
Rear Axle Spacing	55.0
Pusher/Tag Axle Spacing	54.0
Unladen Frame Height at Centerline of Rear Axle	43.6

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.



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Phone: 503-283-0345

TRUCK WEIGHT



VEHICLE SPECIFICATIONS SUMMARY - TRUCK WEIGHT

Model	114SD
Cab Size (829)	.114 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Expected Front Axle(s) Load (lbs)	
Expected Pusher Axle(s) Load (lbs)	11000.0
Expected Rear Axle(s) Load (lbs)	46000.0
Expected Tag Axle(s) Load (lbs)	0.0
Expected GVW (lbs)	77000
Expected GCW (lbs)	90000.0
Wheelbase (545)	5475MM (216 INCH) WHEELBASE
Pusher / Tag Axle (443) HENDRICKSON EX13 COMP 13,	500# FF1 STEERABLE 15X4 BRAKE INTEGRAL PUSHER AXLE
Front Axle to Back of Cab (in)	65.551
Cab to Body Clearance (in)	3.0
Front Axle to Body (in)	79.331
Truck Configuration (AA3)	
Body Length (ft)	14.0
Body Weight (lbs)	4300.0
Body Horiz CG from Body Front (ft)	5.9
Body Front to Rear Axle(s) CL (ft)	11.35
Driver Weight (lbs)	500.0
Driver Horizontal CG from Front Axle (in)	
Left-Hand Primary Fuel/Hydraulic Tank (204)70 GA	LLON/264 LITER RECTANGULAR ALUMINUM FUEL TANK - LH
Left Fuel Tank Horizontal CG (in)	97.7765
Right-Hand Primary Fuel/Hydraulic Tank (206)	NO RH FUEL TANK



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Right Fuel Tank	k Horizontal CG (in	1)	J
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TABLE SUMMARY - TRUCK WEIGHT

Item	Front(s)	Pusher(s)	Rear(s)	Total
	Pus	her/Tag Up		
Chassis Tare	10961	0	8910	19871
Fuel / Oil	322	0	300	622
Driver	454	0	46	500
Dealer Installed Options	0	0	0	0
Accessories Total	0	0	0	0
Body Tare	1305	0	2995	4300
Truck Tare Weight	13042	0	12251	25293
Payload Total	15676	0	49031	64707
Calculated Axle Loads	28718	0	61282	90000
Expected Axle Loads / GVW	20000	11000	46000	90000
Creep GAWR / GVWR (*Max 5 MPH)	27000	0	60000	87000
GAWR / GVWR	18740	11020	46000	75760
	Push	er/Tag Down		
Chassis Tare	9092	1312	9467	19871
Fuel / Oil	279	66	277	622
Driver	448	10	42	500
Dealer Installed Options	0	0	0	0
Accessories Total	0	0	0	0
Body Tare	876	1141	2283	4300
Truck Tare Weight	10695	2529	12069	25293
Payload Total	9048	8471	47188	64707
Calculated Axle Loads	19743	11000	59257	90000
Expected Axle Loads / GVW	20000	11000	46000	90000
GAWR / GVWR	18740	11020	46000	75760
· · · · · · · · · · · · · · · · · · ·				
Payload CG From Front of Body		7 feet		
Payload CG From Front Axle	13.6 feet			
Payload Distribution		Water Level		
All weights dis	played in pounds			



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		'		
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Payload Distribution		Water Level		
All weights dis	played in pounds			

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.



P. O. Box 999 • 10037 SE Mather Road • Clackamas, Oregon 97015

(503) 656-3776 • 1-800-233-7119 • (503) 656-5064

Customer: Clackamas County Fleet Date: 10-3-2022 Address: 902 Abernethy RD Ouote: 2K22109 City State Zip: Oregon City 97045

Salesman: Kirk Snead

Attention: Russ Weber Phone: 971-344-2667 Email: RussWeb@clackam

as.us

Clackamas County 11/13 double wall concave body with plow and sander hydraulics mounted on chassis Tarp and Hot shift PTO on an Allison Transmission

Note changes: pre paint inspection, deleted back up alarm, tow drings at rear, Corrected spec typo: Pup package not included as not provided in Cirus specification see option

Capacity

- Dimensions of dump body: 15'6" long, 84' inside, 34" tall and 96" wide outside.
- Water level of body will be approximately 11 yard and 13 yards with sideboards.
- ➤ Board pockets shall accept the 4 x 8-dimensional fir side boards (3.625x7.5 pockets).

Prebuild / Paint inspection of chassis by Clackamas County

Correct any insures with the chassis prior chassis issues prior to the up fit also a pre paint inspection in required by the county prior to finial paint.

Body floor and under structure

- 1. The dump body floor shall be formed from one piece of 1/4-inch AR 450 floor with 12-inch radius corners.
- 2. 8"x 4" x. 188" A500 grade B rectangular tube long members with 1/2-inch vulcanized rubber truck frame
- 3. Rear cross member shall be formed from 1/4-inch A572-50 high tensile steel and interlock with rear corner
- 4. Front cross member shall be 4-inch by 5.4 lb structural channel and full width of dump body.
- 5. Floor cross supports between the front and rear cross-members are unacceptable.

Dump body sidewalls and dash panel

- 1. Sides shall be double wall design with a 3/4-inch minimum space between the inner and outer walls.
- 2. The inner wall shall be one-piece 3/16 A572-50 steel with formed top and bottom rails with two corrugations. (inverted)
- 3. Inner walls will inner lock with front and rear corner posts.
- 4. The outer walls shall be 12 ga A607-50 formed concave.
- 5. Four heavy-duty flat bar storage hooks shall be installed on each side of body on the outer wall.
- 6. A fold down full length cat walk shall be installed on the driver side of the body and stow with the concave side radius and be split at 39.5" just forward of the first side storage hook.
- 7. Dash panel shall be 3/16 A572-50 high tensile steel with a formed top channel with five vertical reinforcement angles 2x2x1/4.
- 8. Driver side gap step forward of dash panel bolted to front cross member.
- 9. 1/2" drings shall be install on the inside front corners only of the dump body (two total)
- 10. Board pocket for 4x8 dimensional lumber, center board gusset to be drilled for center board bolt

Corner posts

- 1. Rear corner posts shall be 3/16-inch A572-50 high tensile steel.
- 2. Rear corner posts shall inner lock with sidewalls and rear cross member.
- 3. Rear corner posts shall each have two TruckLite LED 60 series stop tail turn lights with Truck-Lite LED mini upper maker light the rear facing SST light shall be mounted as high as possible with a shroud 10ga x 1/2" wide wrapping 75% of the light.
- 4. A recessed side rear marker box with 10 series LED side marker lights and standard oval hole for flasher.
- 5. Rear post shall have provision to mount a clackamas custom spreader apron
- 6. Note: corner post with have 1/4" UHMW plastic gap filler between side shirt and corner post
- 7. Spreader chain hook shall be mounted high on the side of the rear corner posts.
- 8. One 3/8" grab hook shall be mounted on the outside edge near the top of the rear corner posts.
- 9. The rubber housed back up lights shall be mounted on a quick stow arm on the forward edge of the corner post.
- 10. Front corner posts shall be 10ga A607-50 high tensile steel with Truck-Lite super 10 series side marker lights.
- 11. Front corner posts shall inner lock with sidewalls and dash panel.

Spreader apron

- 1. Removable spreader apron shall be provided with full width hinge and metal side shirts. The design shall be approved by the Clackamas County shop personal.
- 2. Note: corner post with have 1/4" UHMW plastic gap filler between side shirt and corner post

The tailgate double wall design

- 1. The inner panel shall be 1/4 AR450. With highlift gate.
- 2. The tailgate shall be framed with 4x4x.120 tubing.
- 3. The tailgate shall have a 4x4x.120 center rib.
- 4. The tailgate shall have an angle welded on the top tube to prevent material build up.
- 5. The outer panels of the tailgate shall be concave.
- 6. The latch pins shall be 1-inch cold drawn AISI 1018 minimum.
- 7. The tailgate shall have two 3/8-inch proof coil spreader chains 84" long with center storage hook.
- 8. The hinges arms shall be plasma cut 1-inch A514 (T1) steel plate.
- 9. The hinge blocks shall be plasma cut 1/2-inch A514 (T1) steel plate.
- 10. The hinge pins shall be 1-inch round cold drawn AISI 1018.
- 11. The hinge arms shall rest on top of the hinge blocks when the tailgate is latched.
- 12. Center lifting d-ring.
- 13. Spreader chain tubes to be mounted on corner posts
- 14. License plate mount on rubber flap

Tailgate latch

- 1. The latch hooks shall be plasma cut 1/2-inch A572-50 high tensile steel.
- 2. The tailgate trip rod shall be 1-inch cold drawn AISI 1018.
- 3. The trip rod will be supported by four 3/4-inch grease type bearing blocks.
- 4. The trip rod shall have an over center lock with adjustable linkage assemblies for both latch hooks.
- 5. The air trip cylinder shall be Absco model 0703A R4 number 5004013 (air open spring lock.).

Cab guard

- 1. The cab guard shall be fabricated from 10 ga A607-50 high tensile steel with 3/16 support arms.
- 2. The cab guard shall provide adequate cab coverage no wider than the truck cab.
- 3. Pull Tarp manual S9-A2

Body hinges

- 1. The body hinges shall be greaseless design.
- 2. The hinge pins shall be 1-7/8-inch (CAT D7E).
- 3. The hinge pins shall have an extra round stock keeper welded to the inside of the hinge pin.
- 4. The hinge bushing assemblies shall be full rap design.
- 5. The hinge bearing blocks shall be 1-inch A572-50 high tensile steel.
- 6. Two Truck-Lite LED 60 series stop, tail, turn lights and the ICC lights shall be mounted in a removable cover plate below the hinge angle.
- 7. The sander couplers shall be mounted in the hinge angle as per the following from left to right (return 4010-6P 1" male, auger 8010-5 3/4" male, spinner 4050-5 female)

Trailer hitch package

- 1. The hitch package shall be a low mount design.
- 2. The trapezoidal hitch plates shall be formed 1/2-inch A572-50 minimum.
- 3. The center bulkhead plate will be 3/4-inch A572-50 minimum.
- 4. The air hitch will be Premier model 370A-281B.
- 5. Side mounted frame towing 1" safety d rings shall be installed on each side of frame at rear.
- 6. Glad-hands shall be bulk-head mounted downward to the right side of the hitch on rubber hoses
- 7. The electrical 7-way shall be mounted to the left side hitch recessed to prevent damage.
- 8. The 7-ways standard trailer lighting
- 9. Final hitch assembly configuration shall be approved by the Clackamas County personal.

**** We need to add a set of D-rings off the back of the frame rail****

Hoist and mount

- 1. The hoist cylinder shall be single acting hoist power up and gravity down.
- 2. Six-inch four stage with 56,540 lb of lift @ 2,000 PSI on the six-inch stage.
- 3. The inside of the dump body shall be free and clear of any hoist mounting obstructions.
- 4. Dump body shall have front mount A-frame hoist bail assembly.
- 5. The hoist cylinder shall be freestanding forward of the dash panel.
- 6. The A-frame and hoist assembly shall mount free and clear forward of the dash panel.
- 7. The A-frame mounting arms shall be 1"x 3-1/2" A572-50 high tensile steel.
- 8. The A-frame assembly shall be fabricated from 3/8"x 3" A572 high tensile steel.
- 9. The lower A-frame bearings blocks shall have screw in grease fittings.
- 10. The lower mounting pins shall be 1-1/4-inch AISI 4140 turned, ground, and polished.
- 11. The upper hoist bearing blocks shall be 1/2-inch A572-50 high tensile steel.
- 12. The upper hoist pin shall be 1-1/4-inch AISI 4140 turned, ground, and polished.

Hydraulics

1. The PTO shall be hot shift with extend shaft mounted on an Allison 4500 transmission

- 2. 98cc 14 spline Eaton 620
- 3. A return line filter shall be installed.
- 4. One full flow ball valve shall be installed between the hydraulic tank and pump.
- 5. The hydraulic oil shall be AW-32.

Valve

- (Qty. 1) Danfoss PVG 100 (48 GPM) Single Acting Hoist
- (Qty. 2) Danfoss PVG 32 (20 GPM) Double Acting Plow Up/Down and Left/Right
- (Qty. 1) Auger (15 GPM)/Spinner (10 GPM)/Prewet (10 GPM)/Anti-Ice (15 GPM) Outlet Manifold
- (Qty, 1) Power Float (Blade Save) with In-Cab operator adjustable pressure setting. (Moray Jr)
- (Qty, 1) high lift tailgate

Cirus Black Tip 210 Controls Mount & Gopher Floor Mounted Arm Unit on Two Way Adjustable Pedestal

- 1.1 The in-cab control system shall be a self-contained system with Black Tip TM integrated plow control with circuit panel, optional spreader control and multi-axis (X, Y) proportional plow control joystick. The unit shall be tooled for pedestal mount or a padded console (for bench seat application). The system will include up to (3) 10-amp rate auxiliary switches and 2 12-volt indicator lights protected with a 10-amp fuse.
- 1.2 The control lever must be a true joystick with multi-axis (X&Y) proportional control. The joystick shall be capable of proportional control of up to four (4) bi-directional valves using up to 8 independent PWM signals for:
- A 4-function: Hoist: lever must have safety trigger protection for hoist function.
- A 4 function: Plows, Control lever will include settable plow float function.

****Pup function is not included ****

- 1.3 The controller must include integrated protection and diagnosis systems:
- a) Channel SafeTM: to protect the system and help diagnose shorted or open circuits that is external to the controller;
- b) Safe StikTM: that shuts down the output channels if a joystick fails;
- 1.4 User settable speed control using Mako Trim TM for all hydraulic functions: the Mako TM control system will allow the user to set the speed of each direction of motion on a PC for all hydraulic devices controlled by the joystick without modification to the hydraulic system.
- 1.5 The system will integrate with Spread Smart Rx TM spreader control system
- 1.6 Power SafeTM Wiring Design: For safety reasons, grounding or cutting any wire at any point between any valve coil and the controller must not cause any valve to actuate. One lead from each hydraulic valve coil must be wired to a common ground point. The system must supply pulsed +12-volt power to the other lead from each individual valve coil.
- 1.7 IP 68 rated Cables: all connections inside the hydraulic valve/electronic control junction box will be supplied integral with the control system. The outside the cab harness will be IP 68 rated up to the valve coil connection. All connections will be labeled with appropriate descriptions for each connection to individual solenoids of the hydraulic actuating cylinders.
- 1.8 Integrated Accessory Control Switches: the system will include up to 4 switches and up to 4 warning indicator lights mounted in the controller. Each switch will handle 12v up to 10amp load and can be operated as on/off, momentary or on/off/on as needed.

Spread Smart RxTM - 7" Color TFT Display

- 1. The spreader controller shall be capable of operating a spreader with auger/conveyor, spinner, pre-wetting system, and 3 boom Anti-Ice systems. Each function shall operate individually or simultaneously without additional controller hardware.
- 2. Spreader control system shall be capable of ground speed orientated Closed or Open Loop operation. Controller will be capable of spreading in Lbs/mile (linear spreading) or Lbs/lane mile (area spreading). The system controller shall be capable of ground speed oriented, closed or open loop spinner control. System shall provide a means for operator to reset and/or indicate current volume of liquid in anti-ice and pre-wet tank(s) as part of power-up routine. System shall display current liquid volume in tank(s) while pre-wet and/or anti-ice system is active. The system controller shall be capable of managing of up to three Anti-ice boom operations with individual boom selection in a single or dual tier arrangement.
- 3. The controller shall be capable of Temp Response TM operating mode, automatically applying material in correlation to measured road temperature.
- 4. The controller shall include Load and Rate Calculation TM to set spreading rates and track remaining materials for all granular and liquid materials.
- 5. The controller shall include the capability of ground speed-oriented control of a hydraulically driven, closed loop gate for a spreader body with a center conveyor.
- 6. Spreader controller shall have a single 7" Color TFT Display. Display shall be remotely mounted with adjustable swivel bracket. Display shall be capable of simultaneous display of Granular, Pre-Wet, and Anti-Ice application rates. Display shall also show other sensors (Temp, GPS, etc.) as well as actual ground speed and all active alarms.
- 7. Spreader controller must provide "on-screen help" documentation of all main operating functions as well as on screen diagnostics for system issues. On-screen help shall be sufficient to enable users to operate the system by following the on-screen instructions, without referring to the printed operations manual.
- 8. System shall alarm either audibly or visually for the following conditions: off rate, sensor failure, low liquid remaining, low liquid flow shutoff.
- 9. Material rates, granular or liquids shall be by toggle actuation (+/-). Toggle actuation shall cause the display to respond accordingly: The first toggle touch shall cause the display to show the current rate set point. The second toggle touch and all subsequent toggle actuations shall increase or decrease the current rate set point.
- 10. System shall provide up to 10 "supervisor settable" application rates in each of granular, Anti-Ice, & Pre-Wet materials. Controller must provide the ability to name each material with up to five characters. Rate increments shall be individually settable for each material.
- 11. The controller shall offer multiple layers of access control to set up files:
- a) "Factory standard" password protected access to operating functions and setup files;
- b) Supervisor re-set capability for each password;
- c) "Laptop computer only" access control for higher security.
- 12. The controller shall have a Blast feature that is capable of operating as: Latched On, Timed on or Momentary On. Blast is active only while operator is activating Blast switch and is disabled in absence of ground speed signal. The controller will default to the pass mode upon startup of the system to prevent spreading in the yard or shop.
- 13. Wiring Design: The system controller shall have one each from each hydraulic valve coil wired to a common ground point. The system must supply pulsed +12-volt power to the other lead for each individual valve 2K22109 Clackamas County.docx REV 2/9/2023: JJS

coil. For safety reasons, grounding or cutting any wire at any point between any valve coil and the controller must not cause any valve to actuate. The system shall include minimum rated IP69 connections for all "outside the cab" connections.

- 14. The spreader controller shall be capable of collecting time, date and location stamped events for all operating modes, errors and alarms, and for all material dispensed. Also, the system shall be capable of recording digital or analog data that comes from up to 4 sensors (such as granular hopper level, gate height opening, granular material flow, plow position, hydraulic pressure, etc.). The spreader control system shall be capable of collecting and storing position data directly from a compatible GPS antenna without additional hardware as well as collecting and storing temperature from a vehicle mounted temperature sensors (Road Watch or QTT brand).
- 15. Data Collection: System must contain at least 1 gigabyte of non-volatile memory on board and have capacity to store spreading data for a minimum of 224 days at 24 hours per day (5,376 continuous spreading hours).
- 16. Spreader control system must interface with Drive by Download TM for automatic downloading of data in a wireless fashion directly to a base station computer without an intermediate device; system must be capable of downloading data at a minimum of 1.5 mega- bits per second (mbps). System must be capable of storing downloaded data in a format that is compatible with the standard data input format for GIS systems ("shape file format").
- 17. Spreader control system must be able to output its data in a standard serial data stream format to any brand AVL system that is able to accept serial data.

**** We have installed an extra pause blast switch that needs to be installed, and we will need to figure out where to install the switch for the high lift gate. ****

Hydraulic hoses

- 1. The hydraulic system shall include a return line filter.
- 2. The hydraulic system will operate @ 2,300 PSI.
- 3. The hydraulic pressure hoses shall be rated @ 3,000 PSI minimum.
- 4. Hydraulic pressure fittings shall be JIC 37 degree and O-ring boss.
- 5. Hoses shall be routed to minimize exposure to tire throw-off.
- 6. Hoses shall not be routed closer than 6-inches from heat sources.
- 7. Hoses shall be protected from heat sources.
- 8. Hoses shall not come in contact with moving parts.
- 9. Hoses shall be protected from sharp edges.)
- 10. Four Port Quick Coupler Drain Manifold for Plow connections at front of truck
- 11. Support spacing for hydraulic hoses shall not exceed 36"

Safety prop, flaps, and miscellaneous

- 1. One body safety prop shall be mounted on the left side of the chassis.
- 2. The body shall have 6-inch full length 5/16 rubber spray guards over the tires.
- 3. Mud flaps shall be black mounted ahead and behind drive tires.
- 4. The rear flap mounts shall be Clackamas County quick change design.
- 5. Two shovel holders shall be provided.
- 6. One hammer holder shall be provided
- 7. All frame attachment shall be made with grade 8 bolts or Huck fasteners.
- 8. Rebar steps inside and out and assist grab handles on both side of body.

Plow Bumper

- 1. The plow bumper shall be ODOT Style SB120.
- 2. The plow couplers shall be mounted on the road side and recessed under the bumper channel.
- 3. The plow couplers shall in the following order from the inside out (angle 8010-5 male, angle 8010-5 male, 4050-5 male hoist)
- 4. The county is responsible to be sure this plow hitch design is combatable with the new plow configuration
- 5. Plow light installed on truck hood using factory provided wiring and using Ecco EW 4010 lights
- 6. Bumper wings shall provide clearance for new plows when turning left and right

**** The plow bumper has been modified to work with the new plows Josh recommends a meeting****

Welding

- 1. Excessive distortion of assembled parts in not acceptable.
- 2. The dump body and other fabricated components shall have good welds. A good weld will have proper penetration and be relatively uniform in appearance.
- 3. All welds shall conform to or exceed American Welding Society Standards and shall provide a metal-to-metal bond, with adequate penetration using proper flux and or welding materials.
- 4. Down hand welds are not recommended for steel thicker than .150. If down hand welds are used, they shall have proper penetration.
- 5. Some characteristics of an unacceptable weld are the following: <u>cracks, undercut, overlap, excessive</u> <u>splatter, slag entrapment, inadequate penetration, excessive distortion, blowholes, and inclusions, excessive porosity, concave or convex.</u>

Body lights and reflectors

- 1. Truck-Lite LED 60 series stop, tail, and turn recessed legal lights.
- 2. Truck-Lite LED 10 series marker lights and reflectors shall be installed where necessary.
- 3. Truck-Lite 50 series sealed wire harness system.

Electrical

- 1. Isolate all electrical circuits installed by body builder from truck chassis with 30-amp resettable breaker, continual duty solenoid and six-section fuse block.
- 2. Truck-Lite 50 series sealed wire harness lighting system.
- 3. Wiring shall be stranded copper.
- 4. Aluminum wire is not acceptable.
- 5. Wire insulation shall be cross-linked polyethylene.
- 6. Wire shall be sized so that the voltage drop for the wire run is less than 5 percent.
- 7. Wiring for lighting on the truck bed shall be no smaller than 14 gauge.
- 8. Wiring shall be routed to minimize exposure to tire throw-off.
- 9. Wires shall not be routed closer than 6 inches from heat sources.
- 10. Wires shall not come in contact with moving parts.
- 11. Wires shall be protected from sharp edges.
- 12. Self-stripping wiring connectors (scotch locks) shall not be used.
- 13. Lighting and reflectors shall comply with FMVSS 108.
- 14. Seven wire trailer connectors to be wired as per Clackamas County specification.
- 15. The aftermarket plow light harness shall be wired to factory chassis plow light provision.
- 16. Plow lights with brackets shall be mounted on the right and left side of the engine hood. Using Ecco EW4010 12-watt LED.
- 17. Body up light

Air system installation

- 1. All air hoses shall be DOT approved.
- 2. The bend radius of airlines shall be not less than the manufacturer's recommended minimum.
- 3. Airlines shall not come in contact with moving parts.
- 4. Airlines shall not be routed through holes or across sharp edges without protection from being chafed or cut.
- 5. Airlines shall be adequately clamped or tied to supporting structures.
- 6. Airline's routing shall be so that low points are minimized.
- 7. Hoses shall be of sufficient length to prevent stretching, distortion, or disconnecting.

Pre paint inspection

1. Clackamas County requires inspection of the up fit and chassis prior to paint

Paint

- 1. All metal surfaces shall be free of contaminates that may cause loss of adhesion. (Grease, oil, etc.)
- 2. The first primer undercoat shall be a metal-etching primer (DuPont Met-o-loc).
- 3. The second primer undercoat shall be epoxy base, lead and chromate free.
- 4. The second primer undercoat shall have a film thickness of one 3 to 5 mils or greater when dry using DuPont (#1380) low VOC high solids epoxy primer.
- 5. Topcoat shall be DuPont Centari 5000 lead free paint, low VOC, high solids acrylic urethane.
- 6. Topcoat shall have a film thickness of 3 to 5 mils.
- 7. Substrates must be between 50 and 110 degrees in a controlled environment during the primer and paint application.
- 8. Compressed air supply must not exceed 20% humidity during the spray process.

Manuals

- 1. Body builder/installer shall supply one owner's manual with each dump body.
- 2. The manual shall include information about the safe operation of the dump body.
- 3. The manual shall also include parts information and electrical and hydraulic schematics of the equipment installed on the chassis.

Base Price	\$ 107,500.00
Option: High lift tailgate	\$ 3,500.00

TOTAL SALES PRICE PER UNIT FOB CLACKAMAS, OREGON \$111,000.00

**** Note: These prices do not include FET or any taxes or user fees****

**** Ouote good for 45 days****