G – S PRODUCTS MODEL COLLECSTAR 9131A

SPECIFICATIONS FOR 31 CUBIC YARD AUTOMATED, FULL EJECT

SCOPE

This specification describes a truck mounted, hydraulic refuse packer. This machine must be equipped with an automated loading mechanism on the curb side of the material receiving hopper near the front of the body. Body must be designed so that optimum load distribution can be achieved when installed on a 62,000-66,000 G.V.W. truck cab and chassis. Body installation shall not require modification to a standard truck chassis forward of the rear suspension. (NO DROP FRAME) THIS BODY MUST BE FULL EJECT MODEL. NO DUMP BODIES ALLOWED.

I. BODY

A. CAPACITY

1. The body shall have a usable capacity of thirty-one (31) cubic yards including the tailgate.

B. DIMENSIONS

1. Body length – 301" – (including bustle tailgate).
2. Overall height above chassis – 102" – (lift mechanism in "down" position).
3. Overall height above chassis –MUST NOT EXCEED 120" – (lift mechanism in full "up" position with 90-100 gallon cart in grabbers).
4. Overall width-102"- with arm in parked position.

1. CONSTRUCTION

1. The body floor shall be constructed of 1/4" HARDOX 450 steel plate.
2. The body floor shall have 8" x 13.5 lbs./ft. structural channel long – members.
3. Body sides shall be curved shell style, eleven (11) gauge HARDOX 450,175,000 P.S.I. steel sheet.
4. Body roof shall be curved shell style, eleven (11) gauge HARDOX 450 steel sheet.
5. All external welds shall be continuous.

II. TAILGATE

A. CAPACITY

1. The tailgate shall have a usable capacity of 6.30 cubic yards minimum.

B. CONSTRUCTION

1. Body tailgate shall be bustle type, top hinged, with heavy-duty hinges and tapered-pin plunger style locks. Lock pins must have

grease fittings located towards the outside edge of the body for easy access.

2. Tailgate shall be equipped with a flow control device to assure smooth, even operation.
3. Tailgate to be constructed from 10 gauge HARDOX 450 steel sheet and framed with formed steel channel.
4. Gate shall have a seal across the bottom and at least 17" up each side to control liquid leakage.

C. OPERATION

1. For greater operational stability and safety the tailgate shall be raised and lowered with two 2 ½" bore x 28" stroke double acting hydraulic cylinders.
2. All tailgate controls shall be located inside the truck cab within easy reach of the operator's position. I.E. tailgate operation shall not require exit of the cab by the driver. Controls shall be electric/air/hydraulic and spring returned to the "neutral" position.
3. Tailgate to lock and release hydraulically through the use of positive acting, tapered rod, plunger-style locks.
4. Tailgate ajar and lock status warning light and alarm to be installed in the truck cab.
5. Safety prop for tailgate to be included.
6. All exterior welds to be continuous.
7. Tailgate lock lube points must be at or below body floor level for service convenience. All gate pivot points must be equipped with greaseless bearings.

III. PACKER HOPPER

A. FUNCTION

1. The receiving hopper shall have 6.0 cubic yards capacity minimum.
2. Hopper shall act as receiving chamber for materials dumped by the lifting mechanism.

B. CONSTRUCTION

1. Hopper floor to be constructed of 1/4" HARDOX 450,175,000 P.S.I steel plate with a 1/4" HARDOX 450 overlay extending 18" past the hopper.
2. Hopper side walls to be 1/4" HARDOX 450,175,000 P.S.I. steel plate.
3. All welds in areas that may be damaged by abrasive material such as fine glass MUST be "HARD SURFACED" with appropriate composite over-weld.

C. HOPPER ACCESS

1. Hopper must have access ladder on curb-side of vehicle. Entry area must have O.H.S.A. compliant ladder and system kill Switch.

IV. COMPACTOR

A. FUNCTION

1. Compactor is to move the material dumped by the arm from the receiving hopper into the body chamber. Also, compactor is to compress the loaded material to such an extent that the vehicle is loaded to its recommended capacity.

B. OPERATION

1. Compactor to be powered by one (1), 6" bore x 84" stroke, single section, dual acting hydraulic cylinder.
2. Packer cycle shall be 35 seconds @ 1200 R.P.M.
3. When fully extended, compactor must penetrate the body by 18" minimum. This aids compaction of the material and reduces fallback into the loading hopper.
4. Compactor shall displace 2.6 cubic yards/cycle minimum.
5. Compactor shall have "on-demand" style controls with both "AUTOMATIC PACK" and "MANUAL PACK" selector console mounted in the truck cab and convenient from both sides of cab.
6. Compactor stroke shall be automatically reversible through the use of high quality automotive grade switches sensitive to both position and pressure.
7. Unit to be equipped with a "near-loaded" warning alarm to alert operator that body is approaching its maximum capacity.

C. CONSTRUCTION

1. Compactor to be guided by a floor mounted "T" track beam.
2. Both the "T" track beam and compactor guide shoes must be made of HARDOX 450,175,000 P.S.I. steel plate.
3. The compactor shall be constructed of engineered steel sections and fully tested using state-of-the-art Finite Stress Analysis technology.

V. AUTOMATED LOADING ARM

A. FUNCTION

1. Loading arm shall be sleeve mounted on the curbside of the loading hopper. Arm horizontal and vertical supports shall be centered in relation to the hopper and the load to be lifted. No part of the loading arm shall be mounted underneath the chassis frame, inside the hopper, or in front of the body. Due to operational stresses under load and over time, NO OFF-SET OR CANTILEVER DESIGNS ARE ACCEPTABLE.
2. Arm must have the ability to pick up containers, dump and return without the need to extend.

3. Once can is engaged, lift MUST move vertically for the first 41" before tipping. This allows cans that may be placed above grade on snow banks or retaining walls to be safely serviced. This vertical movement must be controllable by the operator as needed from the in-cab control position.

4. Arm must have horizontal extension of 120" (144" reach to can center line without tilting or any vertical motion).
5. The container "lift" motion must be operated by one (1) 2" bore x 41" stroke hydraulic cylinder.
6. The container tilt/dump must be operated by one 3" bore x 12 3/8" stroke hydraulic cylinder with 1 3/4" cushion in rod end and 1" cushion in base end.
7. Lift cycle time shall be approximately seven (7) seconds (ground to ground) at engine idle.
8. Lifted container shall not "arc" outboard more than 25" during ground to ground movement.
9. Lift must stow within legal width with lift in down/grab open position.
10. Container dump cycle shall not exceed thirteen (13) feet, six (6) inches from the ground at its highest point. (May vary slightly with different chassis.)
11. Container dump angle when in full "up" position shall be 55 degrees minimum.
12. Lift vertical motion shall be track guided by replaceable, reversible, non-grease, NYLATRON NSM wear shoes. Guides MUST be replaceable without track or lift dis-assembly.
13. Lift cycle shall be smooth, non-binding and non-violent.
14. Lift load capacity shall be 1,000 lbs. at full extension.
15. Lift horizontal movement shall be track guided by NYLATRON NSM non-grease wear guides. Guides MUST be replaceable without track or lift dis-assembly.
16. Lift in/out motion shall be sequenced so that the first 48 inches of motion (stage 1) always extends first. This essentially eliminates wear to stage 2 wear guides since reach beyond 48" is used in less than 5% of average route conditions.
17. Grabbers shall be belt-type capable of handling containers ranging in size from 32 gallon to 110 gallon interchangeably. Grab pressure must be adjustable to suit different types of container manufacturing methods and materials.

B. CONSTRUCTION

1. Loading lifting arms must be constructed of solid high tensile steel plate. Due to their tendency to deflect under load, tubular load lifting components are NOT acceptable.
2. All tilt mechanism connecting pins shall be 1.25" minimum diameter with self-aligning bearings.

3. Lift shall have a top rotator shaft that lifts grab mechanism through its motion while powered by a single hydraulic cylinder.
4. Top shaft shall be retained by replaceable NYLATRON NSM non-grease split bearings (two sets) and grade 8 bolts.
5. Lift arm rotator cam must have NYLATRON NSM non-grease bearing rotating on a 3" diameter shaft. Bearing MUST be replaceable without shaft removal.
6. Cylinder pivots for grab, in-out as well as up/down shall be Teflon backed self-aligning greaseless bearings properly installed with 1" grade 8 bolts or polished chrome pins.
7. Grab pivots must use chromed steel pins with fiber filled greaseless bearings.
8. Grab cylinders (2) shall be 2" bore x 6 3/8" stroke.
9. In-out cylinders shall be two (2) 2" bore x 60" stroke with rubberized bumper on base end.
10. Up-down cylinder shall be 2" bore x 41" stroke.
11. Tilt cylinder must be 3" bore x 12 3/8" stroke
12. Lift shall have only two(2) locations that require lube on a weekly basis.

C. CONTROLS

1. Outside controls for loading mechanism shall be located in the chassis cab and convenient for operator access from the ground.
2. In-cab control to be a joystick or rocker- style switches mounted in cab. Joystick or rocker switches shall control in/out, up/down/dump and grab functions.
3. Lift functions must operate without the need for computers, PLC's, proximity switches, or relays.

VI. BODY UNLOADING

A. FUNCTION

1. Body payload to be offloaded by hydraulically powered HORIZONTAL EJECTION.
2. Ejector panel to be operated by two (2), 4" bore x 116" stroke, SINGLE- SECTION, DOUBLE ACTING hydraulic cylinders. NO MULTI-STAGE TELESCOPIC CYLINDERS ALLOWED.
3. Ejector operation shall be sequenced so that panel will "extend" only when packer panel is in full "extend" position and tailgate is fully "up".
4. Controls to be mounted convenient to operator's in-cab driving location.

B. CONSTRUCTION

1. Ejector panel to have a structural steel tubular frame.
2. Panel guide tracks to be formed 3/16" steel plate.
3. Panel guide/cylinder enclosure tube shall be 5" x 7" x 3/16" structural steel tube equipped with HARDOX 450 steel wear strips.

4. Floor level wear pads must be HARDOX 450.
5. HOIST TO DUMP OR MULTI- STAGE EJECTION CYLINDERS ARE UNACCEPTABLE.

VII. HYDRAULICS

A. PUMP

All body and lift functions shall be powered by a tandem-section gear type pump (36 G.P.M. @ 700 R.P.M.). Tandem Vane type pump is optional. This pump shall be powered by a transmission mounted Chelsea Model 890 power take- off. Front engine driven pump is optional. Each pump section shall automatically unload to tank when factory flow settings are exceeded. This feature prevents unintended or accidental over-speed of the system.

B. BODY CONTROL VALVES

1. The body main valve must be a Parker hydraulics model VA-35 with main system pressure set @ 2,500 P.S.I. This valve must have one (1) control section to act as directional control for the packer. This valve must be electric/air/hydraulic controlled by automotive style relays. NO COMPUTERS OR PLC'S.

2. The valve assembly that controls all other lift and body functions shall be Parker hydraulics model VA-20 with relief set @ 2,500 P.S.I. Valve spool controls must be pneumatic. Lift functions must operate with no computers, PLC's, limit switches, or proximity switches.

C. HYDRAULIC RESERVOIR

The body shall be equipped with a "street-side" body mounted hydraulic reservoir with a minimum capacity of seventy (70) gallons. This reservoir shall be equipped with a fill cap, in-tank return filter, breather, fluid level indicator and temperature gauge. Under normal operating conditions, hydraulic oil temperature MUST NOT EXCEED 75 degrees above ambient temperature without the need for external cooling. NO AUXILIARY COOLING ALLOWED. NO EXCEPTIONS.

D. FILTRATION AND SERVICE

System cleanliness and protection against contamination shall be accomplished through the use of the following devices:

1. All oil shall be routed through a 10 micron return line filter. This filter shall be installed at or near the front of the hydraulic reservoir and properly sized so that 100% of the flow is filtered under normal operating conditions without bypass. Filter must be located so that all periodic service can be performed from ground level. Filter service must be possible without loss of fluid.

2. IN-LINE SHUTOFF.
   For ease of service the suction line shall be equipped with a shutoff valve plumbed adjacent to the reservoir.
3. SUCTION STRAINER.
   A 100-mesh oil strainer must be installed in the hydraulic system suction line. This strainer must be serviceable without draining the system reservoir.

E. PLUMBING

All body and lift plumbing not requiring flexibility to complete its function must be constructed of seamless steel hydraulic tubing correctly sized for each operation. Plumbing requiring hoses shall be routed in such a way as to prevent rubbing, chafing and undue bending.

VIII. IN-CAB CONTROLS

The following controls must be mounted inside the truck cab for safe and convenient operation.

1. Hydraulic system on/off switch.
2. Body tailgate control.
3. Body ejector control.
4. Work light and strobe light switches.
5. Hopper cover control.
6. Lift joystick/ Rocker Switches
7. Packer over-ride switch

IX. LIGHTS

1. Standard lights shall be supplied in accordance with FMVSS#108.
2. All body lights must be TRUCKLITE Model "SUPER 44" L.E.D. with SERIES 50 wiring harness.
3. Automated lift working area must have implement style adjustable work lights.
4. Body must be equipped with Petersen SMART-LITE system with tailgate mounted upper and lower turn/stop and safety signal lighting as well as two front facing flashing lights.

X. ACCESSORIES

1. Federal under-ride bumper shall be installed.
2. Tailgate safety prop shall be provided.
3. Tailgate "ajar" and tailgate "unlock" alarm shall be provided.
4. Back up alarm shall be provided.
5. Both body and hopper shall have access doors on each side for cleaning behind the packer and ejector panels. Doors must be sealed when closed.
6. Hydraulically operated hopper cover/crusher panel..
7. Unit shall equipped with a QUAD CAMERA SYSTEM by ZONE DEFENSE, MODEL ZD.323.1 LCD 2 camera system MODEL CAM 313C

(other camera systems available on request)
camera with 7" color LCD 22 pin, soft button monitor. Must include ASSC-400D PanaVice HD adjustable mount and all cables.

XI. PAINTING PROCEDURES

1. The body and lift shall be free of all weld slag, dirt and grease and be prepared prior to painting in accordance with the paint manufacturers specifications.
2. Body and loading mechanism shall receive at least one coat of primer and two finish coats of polyurethane enamel. Primer shall be approved for use with the finish coat material.

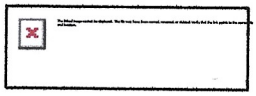
XII. WARRANTY

1. A minimum one-year warranty against manufacturing defects shall be provided by the manufacturer.

2. BODY MANUFACTURER MUST BE EQUIPPED TO PROVIDE ON-SITE SERVICE IF NEEDED.

3. SUFFICIENT ON-SITE TRAINING FOR BOTH OPERATORS AND MECHANICS SHALL BE CONDUCTED WHEN COMPLETED UNIT IS DELIVERED.

XIII. BODY MUST BE MANUFACTURED IN THE U.S.A.



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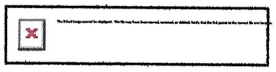
SPECIFICATION PROPOSAL

	Description	Weight Front	Weight Rear
Price Level			
	M2 PRL-27M (EFF:MY24 ORDERS)		
Data Version			
	SPECPRO21 DATA RELEASE VER 015		
Vehicle Configuration			
	M2 106 CONVENTIONAL CHASSIS	5,709	3,450
	2024 MODEL YEAR SPECIFIED		
	SET BACK AXLE - TRUCK		
	STRAIGHT TRUCK PROVISION		
	LH PRIMARY STEERING LOCATION		
General Service			
	TRUCK CONFIGURATION		
	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
	REFUSE SERVICE		
	SANITATION BUSINESS SEGMENT		
	DRY BULK COMMODITY		
	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
	MAXIMUM 8% EXPECTED GRADE		
	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
	MEDIUM TRUCK WARRANTY		
	EXPECTED FRONT AXLE(S) LOAD : 16000.0 lbs		
	EXPECTED REAR DRIVE AXLE(S) LOAD : 40000.0 lbs		
	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 56000.0 lbs		
Truck Service			
	RECYCLING BODY		



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	Description	Weight Front	Weight Rear
	GSP MARKETING		
	EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine			
	CUM L9 360 HP @ 2200 RPM, 2200 GOV RPM, 1150 LB-FT @ 1200 RPM, REFUSE	640	30
Electronic Parameters			
	69 MPH ROAD SPEED LIMIT		
	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
	PTO MODE ENGINE RPM LIMIT - 1500 RPM		
	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED		
	PTO RPM WITH CRUISE SET SWITCH - 900 RPM		
	PTO RPM WITH CRUISE RESUME SWITCH - 900 RPM		
	PTO MODE CANCEL VEHICLE SPEED - 5 MPH		
	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND		
	ONE REMOTE PTO SPEED		
	PTO SPEED 1 SETTING - 700 RPM		
	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2 MPH ABOVE SET SPEED, 2 MPH INCREMENT BETWEEN BRAKING LEVELS		
	PTO MINIMUM RPM - 700		
	REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
Engine Equipment			
	2010 EPA/CARB/GHG21 CONFIGURATION		
	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD CORNER OF DRIVER DOOR)		
	STANDARD OIL PAN		
	ENGINE MOUNTED OIL CHECK AND FILL		
	SIDE OF HOOD AIR INTAKE WITH FIREWALL MOUNTED DONALDSON AIR CLEANER		
	DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE		
	(2) DTNA GENUINE, FLOODED STARTING, MIN 2000CCA, 370RC, THREADED STUD BATTERIES	10	
	BATTERY BOX FRAME MOUNTED		

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	Description	Weight Front	Weight Rear
	STANDARD BATTERY JUMPERS		
	LH BATTERY BOX MOUNTED AS FAR AFT AS POSSIBLE, NO GREATER THAN 60 INCHES BACK OF CAB		
	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
	NON-POLISHED BATTERY BOX COVER		
	POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	2	
	CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
	STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR		
	AIR COMPRESSOR DISCHARGE LINE		
	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
	C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH	80	
*	RH INBOARD FRAME MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH HORIZONTAL TAILPIPE	-50	-50
	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH		
	STANDARD EXHAUST SYSTEM LENGTH		
	RH STANDARD HORIZONTAL TAILPIPE		
	6 GALLON DIESEL EXHAUST FLUID TANK		
	100 PERCENT DIESEL EXHAUST FLUID FILL		
	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING		
	STANDARD DIESEL EXHAUST FLUID TANK CAP		
	AIR POWERED ON/OFF ENGINE FAN CLUTCH		
	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		
	CUMMINS SPIN ON FUEL FILTER		
	COMBINATION FULL FLOW/BYPASS OIL FILTER		
	1100 SQUARE INCH ALUMINUM RADIATOR	70	
	ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		

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	Description	Weight Front	Weight Rear
	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
	RADIATOR DRAIN VALVE		
	LOWER RADIATOR GUARD		
	PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	4	
	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
	ALUMINUM FLYWHEEL HOUSING		
	ELECTRIC GRID AIR INTAKE WARMER		
	DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH		
Transmission			
	ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	200	60
Transmission Equipment			
	ALLISON VOCATIONAL PACKAGE 170 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL RDS AND EVS		
	ALLISON VOCATIONAL RATING FOR REFUSE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES		
	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		
	PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
	SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
	PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
	SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
	ENGINE BRAKE RANGE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		

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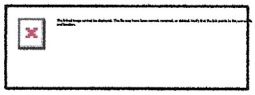
	Description	Weight Front	Weight Rear
	ENGINE BRAKE RANGE ALTERNATE PRESELECT RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		
	FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED		
	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES		
	DIRECTION CHANGE ENABLED WITH MULTIPLEXED SERVICE BRAKES - ALLISON 5TH GEN TRANSMISSIONS		
	VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT BACK OF CAB		
	ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED		
	CUSTOMER INSTALLED CHELSEA 280 SERIES PTO		
	PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION ALLISON		
	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED		
	TRANSMISSION PROGNOSTICS - ENABLED 2013		
	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK		
	TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK		
	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		
Front Axle and Equipment			
	DETROIT DA-F-16.0-5 16,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190	
	MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10	
	NON-ASBESTOS FRONT BRAKE LINING		
	CAST IRON OUTBOARD FRONT BRAKE DRUMS		
	FRONT BRAKE DUST SHIELDS	5	
	FRONT OIL SEALS		
	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		
	STANDARD SPINDLE NUTS FOR ALL AXLES		



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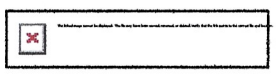
	Description	Weight Front	Weight Rear
	MERITOR AUTOMATIC FRONT SLACK ADJUSTERS		
	TRW TAS-85 POWER STEERING	40	
	POWER STEERING PUMP		
	2 QUART SEE THROUGH POWER STEERING RESERVOIR		
	OIL/AIR POWER STEERING COOLER	5	
	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension			
	16,000# TAPERLEAF FRONT SUSPENSION	200	
	MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION		
	FRONT SHOCK ABSORBERS		
Rear Axle and Equipment			
	MT-40-14X 40,000# R-SERIES TANDEM REAR AXLE		2,500
	6.14 REAR AXLE RATIO		
	IRON REAR AXLE CARRIER WITH OPTIONAL HEAVY DUTY AXLE HOUSING		30
	MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	40	40
	MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES		
	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		30
	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AND REAR-REAR AXLE VALVE		
	BLINKING LAMP WITH EACH INTERAXLE LOCK SWITCH, INTERAXLE UNLOCK DEFAULT WITH IGNITION OFF		
	BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH		
	MERITOR 16.5X8.62 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		
	NON-ASBESTOS REAR BRAKE LINING		
	STANDARD BRAKE CHAMBER LOCATION		
	CAST IRON OUTBOARD REAR BRAKE DRUMS		40
	REAR BRAKE DUST SHIELDS		10



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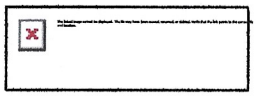
CANONSBURG, PA 15317
Phone: 724-514-2055

	Description	Weight Front	Weight Rear
	REAR OIL SEALS		
	WABCO TRISTOP-D LONGSTROKE 30/36 2-DRIVE AXLE SPRING PARKING CHAMBERS		20
	HALDEX AUTOMATIC REAR SLACK ADJUSTERS		
	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		
Rear Suspension			
*	HENDRICKSON HN462 @46,000# REAR SUSPENSION		810
*	CUSTOM RIDE HEIGHT RIDE HEIGHT 9.56"		
	STANDARD AXLE SEATS IN AXLE CLAMP GROUP		
*	54 INCH AXLE SPACING		
*	HENDRICKSON HN,HAULMAAX AND ULTIMAAX SERIES STEEL BEAMS WITH BAR PIN		
*	FORE/AFT AND TRANSVERSE CONTROL RODS		
*	REAR SHOCK ABSORBERS - TWO AXLES (TANDEM)		40
Brake System			
	AIR BRAKE PACKAGE		
	WABCO 4S/4M ABS		
	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
	FIBER BRAID PARKING BRAKE HOSE		
	STANDARD BRAKE SYSTEM VALVES		
	STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
	STD U.S. FRONT BRAKE VALVE		
	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		
	BW AD-9 BRAKE LINE AIR DRYER WITH HEATER	20	
	AIR DRYER MOUNTED INBOARD ON LH RAIL		
	STEEL AIR TANKS MOUNTED AFT INSIDE AND/OR BELOW FRAME JUST FORWARD OF REAR SUSPENSION		
	BW DV-2 AUTO DRAIN VALVE WITH HEATER - WET TANK		
Trailer Connections			
	UPGRADED CHASSIS MULTIPLEXING UNIT		
	UPGRADED BULKHEAD MULTIPLEXING UNIT		



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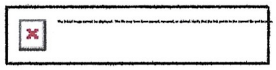
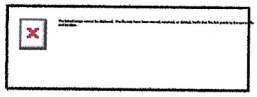
	Description	Weight Front	Weight Rear
Wheelbase & Frame			
	6400MM (252 INCH) WHEELBASE		
	11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI	390	150
	1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT	210	420
	2450MM (96 INCH) REAR FRAME OVERHANG		
	FRAME OVERHANG RANGE: 91 INCH TO 100 INCH	-60	260
	CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 186.42 in		
	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 183.42 in		
	CALC'D FRAME LENGTH - OVERALL : 377.86 in		
	CALCULATED FRAME SPACE LH SIDE : 101.87 in		
	CALCULATED FRAME SPACE RH SIDE : 97.89 in		
	SQUARE END OF FRAME		
	FRONT CLOSING CROSSMEMBER		
	LIGHTWEIGHT HEAVY DUTY ALUMINUM ENGINE CROSSMEMBER	-12	
	STANDARD CROSSMEMBER BACK OF TRANSMISSION		
	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
	STANDARD REARMOST CROSSMEMBER		
	STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment			
	THREE-PIECE 14 INCH PAINTED STEEL BUMPER WITH COLLAPSIBLE ENDS	30	
	FRONT TOW HOOKS - FRAME MOUNTED	15	
	BUMPER MOUNTING FOR SINGLE LICENSE PLATE		
	BETTS B-25 PAINTED MUDFLAP BRACKETS		15
	BLACK MUDFLAPS		15
	FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS		
	GRADE 8 THREADED HEX HEADED FRAME FASTENERS		
	CLEAR FRAME RAILS (EXCEPT AIR DRYER) OUTBOARD BOTH RAILS BACK OF CAB TO REAR SUSPENSION		





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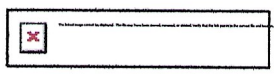
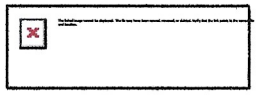
	Description	Weight Front	Weight Rear
Fuel Tanks			
	70 GALLON/264 LITER ALUMINUM FUEL TANK - LH	30	
	23 INCH DIAMETER FUEL TANK(S)		
	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		
	FUEL TANK(S) FORWARD		
	30 GALLONS ADDITIONAL FUEL		
	PLAIN STEP FINISH		
	FUEL TANK CAP(S)		
	DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR, HAND PRIMER AND 12 VOLT PREHEATER"	-5	
	EQUIFLO INBOARD FUEL SYSTEM		
	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
	FUEL COOLER MOUNTED LEFT HAND IN RAIL	10	
Tires			
	MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL FRONT TIRES	100	
	MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL REAR TIRES		400
Hubs			
	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS		
	CONMET PRESET PLUS PREMIUM IRON REAR HUBS		
Wheels			
	MAXION WHEELS 10041 22.5X9.00 10-HUB PILOT 5.25 INSET 5-HAND STEEL DISC FRONT WHEELS	66	
	MAXION WHEELS 10047 22.5X9.00 10-HUB PILOT 5-HAND STEEL DISC REAR WHEELS		184
	FRONT WHEEL MOUNTING NUTS		
	REAR WHEEL MOUNTING NUTS		
Cab Exterior			
	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB		
	AIR CAB MOUNTING		
	LH AND RH GRAB HANDLES		





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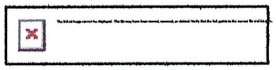
	Description	Weight Front	Weight Rear
	PAINTED PLASTIC GRILLE		
	ARGENT SILVER HOOD MOUNTED AIR INTAKE GRILLE		
	FIBERGLASS HOOD		
	SINGLE 14 INCH ROUND POLISHED AIR HORN ROOF MOUNTED	4	
	SINGLE ELECTRIC HORN		
	SINGLE HORN SHIELD		
	REAR LICENSE PLATE MOUNT END OF FRAME		
	INTEGRAL HEADLIGHT/MARKER ASSEMBLY		
	(5) AMBER MARKER LIGHTS		
	INTEGRAL STOP/TAIL/BACKUP LIGHTS		
	STANDARD FRONT TURN SIGNAL LAMPS		
	DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE		
	DOOR MOUNTED MIRRORS		
	102 INCH EQUIPMENT WIDTH		
	LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
	RH AND LH 8 INCH STAINLESS STEEL FENDER MOUNTED CONVEX MIRRORS WITH TRIPOD BRACKETS	8	
	STANDARD SIDE/REAR REFLECTORS		
	63X14 INCH TINTED REAR WINDOW		
	TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS		
	MANUAL DOOR WINDOW REGULATORS		
	1-PIECE SOLAR GREEN GLASS WINDSHELD		
	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED		
Cab Interior			
	OPAL GRAY CLOTH INTERIOR		
	MOLDED PLASTIC DOOR PANEL WITHOUT VINYL INSERT WITH ALUMINUM KICKPLATE LOWER DOOR		
	MOLDED PLASTIC DOOR PANEL WITHOUT VINYL INSERT WITH ALUMINUM KICKPLATE LOWER DOOR		
	BLACK MATS WITH SINGLE INSULATION		



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Description	Weight Front	Weight Rear
FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING		
IN DASH STORAGE BIN		
(2) CUP HOLDERS LH AND RH DASH		
GRAY/CHARCOAL FLAT DASH		
5 LB. FIRE EXTINGUISHER	10	
HEATER, DEFROSTER AND AIR CONDITIONER		
STANDARD HVAC DUCTING		
MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
STANDARD HEATER PLUMBING WITH BALL SHUTOFF VALVES		
VALEO HEAVY DUTY A/C REFRIGERANT COMPRESSOR		
BINARY CONTROL, R-134A		
STANDARD INSULATION		
SOLID-STATE CIRCUIT PROTECTION AND FUSES		
12V NEGATIVE GROUND ELECTRICAL SYSTEM		
DOME LIGHT WITH 3-WAY SWITCH ACTIVATED BY LH AND RH DOORS		
DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME		
KEY QUANTITY OF 2		
CAB DOOR LATCHES WITH MANUAL DOOR LOCKS		
(1) 12 VOLT POWER SUPPLY IN DASH		
TRIANGULAR REFLECTORS WITHOUT FLARES	10	
BASIC ISRINGHAUSEN HIGH BACK AIR SUSPENSION DRIVERS SEAT WTIH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	30	
BASIC ISRINGHAUSEN HIGH BACK AIR SUSPENSION PASSENGER SEAT WTIH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	25	10
LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
VINYL WITH VINYL INSERT DRIVER SEAT		
VINYL WITH VINYL INSERT PASSENGER SEAT		
HIGH VISIBILITY ORANGE SEAT BELTS		
ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN	10	

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Description	Weight Front	Weight Rear
4-SPOKE 18 INCH (450MM) STEERING WHEEL		
DRIVER AND PASSENGER INTERIOR SUN VISORS		
Instruments & Controls		
GRAY DRIVER INSTRUMENT PANEL		
GRAY CENTER INSTRUMENT PANEL		
ENGINE REMOTE INTERFACE WITH PARK BRAKE AND NEUTRAL INTERLOCKS		
BLACK GAUGE BEZELS		
LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS		
ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
2 INCH ELECTRIC FUEL GAUGE		
ENGINE REMOTE INTERFACE WITH INCREMENT/DECREMENT		
ENGINE REMOTE INTERFACE CONNECTOR AT BACK OF CAB		
ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
TRANSMISSION OIL TEMPERATURE INDICATOR LIGHT		
ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
NO DR ASSIST SYSTEM		
ELECTRIC ENGINE OIL PRESSURE GAUGE		
NO OVERHEAD INSTRUMENT PANEL		
AM/FM/WB WORLD TUNER RADIO WITH AUXILIARY INPUT, J1939	10	

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	Description	Weight Front	Weight Rear
	DASH MOUNTED RADIO		
	(2) RADIO SPEAKERS IN CAB		
	AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF		
	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
	STANDARD VEHICLE SPEED SENSOR		
	ELECTRONIC 3000 RPM TACHOMETER		
	IDLE LIMITER, ELECTRONIC ENGINE		
	(2) OVERHEAD MOUNTED LANYARD CONTROLS: (1) OFFICER AIR HORN AND (1) DRIVER AIR HORN		
	WORK BRAKE WITH RETURN TO GEAR, AUTO NEUTRAL, FOR DRIVE AXLE SERVICE BRAKES		
	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH		
	ONE VALVE PARKING BRAKE SYSTEM WITH DASH VALVE CONTROL AUTONEUTRAL AND WARNING INDICATOR		
	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE		
	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS		
Design			
	PAINT: ONE SOLID COLOR		
Color			
	CAB COLOR A: L0006EY WHITE ELITE EY		
	BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT		
	POWDER WHITE (N0006EA) FRONT WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)		
	POWDER WHITE (N0006EA) REAR WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)		
	BUMPER PAINT: FP24812 ARGENT SILVER DUPONT FLEX		
	STANDARD E COAT/UNDERCOATING		

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Description	Weight Front	Weight Rear
Certification / Compliance		
U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS		
Secondary Factory Options		
SHIP TO FONTAINE (MOUNT HOLLY, NC) PRIOR TO DELIVERY		
Sales Programs		
NO SALES PROGRAMS HAVE BEEN SELECTED		

TOTAL VEHICLE SUMMARY

Weight Summary

	Weight Front	Weight Rear	Total Weight
Factory Weight+	8056 lbs	8464 lbs	16520 lbs
Total Weight+	8056 lbs	8464 lbs	16520 lbs

Extended Warranty

TOWING: 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.

(***) 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.