

G –S PRODUCTS COLLECSTAR MODEL # CSD9120

SPECIFICATIONS FOR 20 CUBIC YARD AUTOMATED, GRAVITY UNLOAD

SCOPE

This specification describes a truck mounted, hydraulic refuse packer. 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 33,000 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 GRAVITY DUMP UNLOAD.

I. BODY

A. CAPACITY

1. The body shall have a usable capacity of twenty(20) cubic yards including the tailgate.

B. DIMENSIONS

1. Body length –228” – (including bustle tailgate).
2. Overall height above chassis – 102” – (lift mechanism in “down” position).
3. Overall height above chassis –MUST NOT EXCEED 110” – (lift mechanism in full “up” position with 90–100-gallon cart in grabbers).
4. Overall width 96”- 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 6” x 10.5 lbs./ft. structural channel long – members.
3. Body sides shall be curved shell style, twelve (12) gauge, 50,000 P.S.I. steel sheet.
4. Body roof shall be curved shell style, twelve (12) gauge 50,000 P.S.I. steel sheet.
5. All external welds shall be continuous.

II. TAILGATE

A. CAPACITY

1. The tailgate shall have a usable capacity of 4.5 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 accessible from ground level outside the body.

2. Tailgate shall be equipped with a flow control device to assure smooth, even operation.
3. Tailgate to be constructed from 12-gauge steel sheet and framed with formed steel channel.
4. Gate shall have a seal across the bottom and at least 12" 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.

III. PACKER HOPPER

A. FUNCTION

1. The receiving hopper shall have 3.8 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 ¼". HARDOX 450 steel plate.
2. Hopper side walls to be ¼". HARDOX 450 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 60" stroke, single section, dual acting hydraulic cylinder.
2. Packer cycle shall be 20 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 1.9 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 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 35" before tipping. This allows cans that may be placed above grade on snowbanks 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 110" (124" 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 35" stroke hydraulic cylinder.
6. The container tilt/dump must be operated by one 3" bore x 12 3/8" stroke hydraulic cylinder with 1 1/2" cushion in rod 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 20" 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 from the ground at its highest point. (May vary slightly with different chassis.)
11. Container dump angle when in full "up" position shall be 50 degrees minimum.
12. Lift vertical motion shall be track guided by replaceable, non-grease, NYLATRON NSM wear shoes.
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. Grabbers shall be belt-type capable of handling containers ranging in size from 48 gallon to 100 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 and grease fittings.
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.
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.
7. Grab pivots must use chromed steel pins with fiber filled greaseless bearings.
8. Grab cylinders (2) shall be 2" bore x 6" stroke.
9. In-out cylinders shall be (2) 2" bore x 55" stroke with rubberized bumper on base end.
10. Up-down cylinder shall be 2" bore x 35" stroke.

11. Tilt cylinder must be 3" bore x 12 3/8" stroke

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 GRAVITY DUMP...
2. Hoist cylinder shall have 120: stroke with 3 stages. Dump angle to be 45 degrees minimum.
- 3 Controls to be mounted convenient to operator's in-cab driving location.
4. Body must be equipped with safety prop for service access.

VII. HYDRAULICS

A. PUMP

All body and lift functions shall be powered by a tandem-section gear type pump (36 G.P.M. @ 800 R.P.M.). This pump shall be powered by a transmission mounted Chelsea Model 890 power take- off. 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-20 with main system pressure set @ 2,500 P.S.I. This valve must have two (2) control sections to act as directional control for the packer and to control the body hoist. 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" frame mounted hydraulic reservoir with a minimum capacity of sixty (60) gallons. This reservoir shall be equipped with a fill cap, 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 dump control.
4. Work light and strobe light switches'.
5. Lift joystick/ Rocker Switches
6. 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.

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. Hopper shall have access doors on each side for cleaning behind the packer. Doors must be sealed when closed.
6. Unit shall be equipped with a TRIPLE CAMERA SYSTEM located to customer specifications. . .

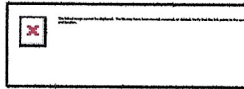
XI. PAINTING PROCEDURES

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 one finish coat 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.

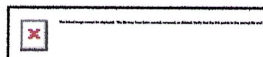


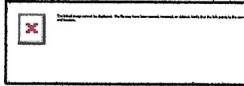
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SPECIFICATION PROPOSAL

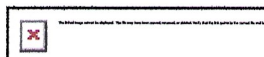
Description	Weight Front	Weight Rear
Price Level		
M2 PRL-27M (EFF:MY24 ORDERS)		
Data Version		
SPECPRO21 DATA RELEASE VER 015		
Vehicle Configuration		
M2 106 CONVENTIONAL CHASSIS	5,709	3,450
2024 MODEL YEAR SPECIFIED		
SET BACK AXLE - TRUCK		
STRAIGHT TRUCK PROVISION		
LH PRIMARY STEERING LOCATION		
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 : 12000.0 lbs		
EXPECTED REAR DRIVE AXLE(S) LOAD : 21000.0 lbs		
EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 33000.0 lbs		
Truck Service		
RECYCLING BODY		

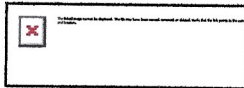




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Description	Weight Front	Weight Rear
GSP MARKETING EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine		
CUM L9 300 HP @ 2200 RPM, 2200 GOV RPM, 860 LB-FT @ 1200 RPM, REFUSE	640	30
Electronic Parameters		
70 MPH ROAD SPEED LIMIT CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT PTO MODE ENGINE RPM LIMIT - 1100 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 PTO MINIMUM RPM - 900 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 BATTERY BOX FRAME MOUNTED STANDARD BATTERY JUMPERS SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN	10	



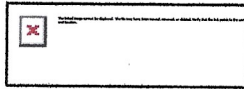


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Description	Weight Front	Weight Rear
NON-POLISHED BATTERY BOX COVER		
POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER	2	
CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
STANDARD MECHANICAL AIR COMPRESSOR 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		
HORTON DRIVEMASTER ADVANTAGE ON/OFF FAN DRIVE		
AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		
CUMMINS SPIN ON FUEL FILTER		
COMBINATION FULL FLOW/BYPASS OIL FILTER		
900 SQUARE INCH ALUMINUM RADIATOR	15	
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
RADIATOR DRAIN VALVE		

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Description	Weight Front	Weight Rear
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 3500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	200	60
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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

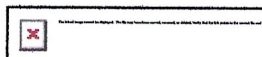
SECONDARY SHIFT SCHEDULE
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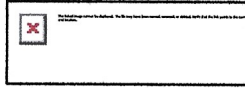
PRIMARY SHIFT SPEED RECOMMENDED BY
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ENGINE BRAKE RANGE PRESELECT
RECOMMENDED BY DTNA AND ALLISON, THIS
DEFINED BY ENGINE AND VOCATIONAL USAGE

ENGINE BRAKE RANGE ALTERNATE
PRESELECT RECOMMENDED BY DTNA AND
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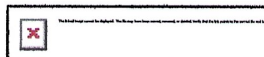
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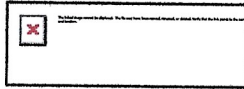
Description	Weight Front	Weight Rear
FUEL SENSE 2.0 DISABLED - PERFORMANCE - TABLE BASED		
DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES		
DIRECTION CHANGE ENABLED WITH MULTIPLEXED SERVICE BRAKES - ALLISON 5TH GEN TRANSMISSIONS		
VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT BACK OF CAB		
ELECTRONIC 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-12.0-3 12,000# FF1 71.5 KPI/3.74
DROP SINGLE FRONT AXLE
MERITOR 16.5X5 Q+ CAST SPIDER CAM FRONT
BRAKES, DOUBLE ANCHOR, FABRICATED
SHOES
NON-ASBESTOS FRONT BRAKE LINING
CAST IRON OUTBOARD FRONT BRAKE DRUMS
FRONT BRAKE DUST SHIELDS
FRONT OIL SEALS
CR STEEL VENTED FRONT HUB CAPS WITH
WINDOW AND CENTER PLUG - OIL
STANDARD SPINDLE NUTS FOR ALL AXLES
MERITOR AUTOMATIC FRONT SLACK
ADJUSTERS
TRW THP-60 POWER STEERING

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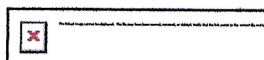


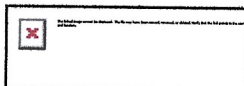


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Description	Weight Front	Weight Rear
POWER STEERING PUMP 2 QUART SEE THROUGH POWER STEERING RESERVOIR CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension		
12,000# DUAL TAPERLEAF FRONT SUSPENSION	42	
MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION FRONT SHOCK ABSORBERS		
Rear Axle and Equipment		
RS-21-160 21,000# R-SERIES SINGLE REAR AXLE		180
5.38 REAR AXLE RATIO IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING		
MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	20	20
DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE		20
(1) DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES NON-ASBESTOS REAR BRAKE LINING BRAKE CAMS AND CHAMBERS ON REAR SIDE OF DRIVE AXLE(S) CONMET CAST IRON REAR BRAKE DRUMS REAR BRAKE DUST SHIELDS REAR OIL SEALS		
WABCO TRISTOP-D LONGSTROKE 30/36 1- DRIVE AXLE SPRING PARKING CHAMBERS MERITOR AUTOMATIC REAR SLACK ADJUSTERS CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		5

Rear Suspension		
* REYCO 102CC 23,000# REAR SUSPENSION		110





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Description	Weight Front	Weight Rear
SPRING SUSPENSION - 2.25 INCH AXLE SPACER		10
STANDARD AXLE SEATS IN AXLE CLAMP GROUP		
* FORE/AFT CONTROL RODS		

Brake System

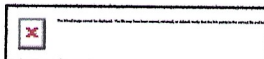
AIR BRAKE PACKAGE		
WABCO 4S/4M ABS		
REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
FIBER BRAID PARKING BRAKE HOSE		
STANDARD BRAKE SYSTEM VALVES		
STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
STD U.S. FRONT BRAKE VALVE		
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING 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		

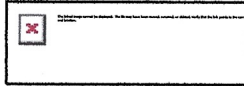
Trailer Connections

UPGRADED CHASSIS MULTIPLEXING UNIT
UPGRADED BULKHEAD MULTIPLEXING UNIT

Wheelbase & Frame

5950MM (234 INCH) WHEELBASE		
7/16X3-9/16X11-1/8 INCH STEEL FRAME (11.11MMX282.6MM/0.437X11.13 INCH) 120KSI	420	290
1925MM (76 INCH) REAR FRAME OVERHANG		
FRAME OVERHANG RANGE: 71 INCH TO 80 INCH	-20	100
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 168.7 in		
CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 165.7 in		
CALC'D FRAME LENGTH - OVERALL : 349.03 in		
CALCULATED FRAME SPACE LH SIDE : 133.14 in		

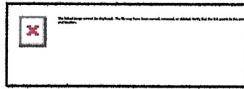




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Description	Weight Front	Weight Rear
CALCULATED FRAME SPACE RH SIDE : 117.17 in		
SQUARE END OF FRAME		
FRONT CLOSING CROSSMEMBER		
STANDARD WEIGHT ENGINE CROSSMEMBER		
STANDARD CROSSMEMBER BACK OF TRANSMISSION		
STANDARD MIDSHIP #1 CROSSMEMBER(S)		
STANDARD REARMOST CROSSMEMBER		
STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment		
THREE-PIECE 14 INCH PAINTED STEEL BUMPER WITH COLLAPSIBLE ENDS	30	
FRONT TOW HOOKS - FRAME MOUNTED BUMPER MOUNTING FOR SINGLE LICENSE PLATE	15	
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 48 INCHES FROM BACK OF CAB INSIDE/OUTBOARD AND BELOW BOTH FRAME RAILS		
Fuel Tanks		
50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	20	
RECTANGULAR 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		

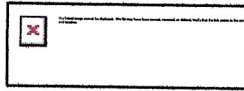




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	Description	Weight Front	Weight Rear
	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
Tires			
	MICHELIN X WORKS Z 11R22.5 16 PLY RADIAL FRONT TIRES	42	
	MICHELIN X MULTI D 11R22.5 16 PLY RADIAL REAR TIRES		60
Hubs			
	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS		
	CONMET PRESET PLUS PREMIUM IRON REAR HUBS		
Wheels			
	ACCURIDE 43644 ACCU-LITE 22.5X8.25 10-HUB PILOT 5.79 INSET ALUMINUM DISC FRONT WHEELS	-64	
	ACCURIDE 43644 ACCU-LITE 22.5X8.25 10-HUB PILOT ALUMINUM DISC REAR WHEELS		-128
	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		
	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		



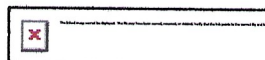


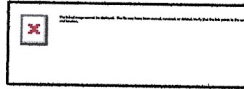
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Description	Weight Front	Weight Rear
DOOR MOUNTED MIRRORS		
102 INCH EQUIPMENT WIDTH		
LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
RH AND LH 8 INCH STAINLESS STEEL FENDER MOUNTED CONVEX MIRRORS WITH TRIPOD BRACKETS	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 WINDSHIELD		
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		
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		
SMART SWITCH EXPANSION MODULE		
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		



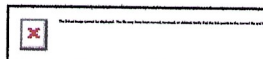


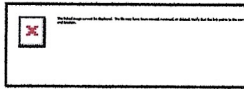
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Description	Weight Front	Weight Rear
BINARY CONTROL, R-134A		
STANDARD INSULATION		
SOLID-STATE CIRCUIT PROTECTION AND FUSES		
12V NEGATIVE GROUND ELECTRICAL SYSTEM		
DOME DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF		
DOOR LOCKS 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 WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	30	
BASIC ISRINGHAUSEN HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH 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	
4-SPOKE 18 INCH (450MM) STEERING WHEEL		
DRIVER AND PASSENGER INTERIOR SUN VISORS		

Instruments & Controls

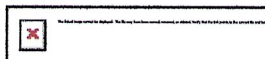
GRAY DRIVER INSTRUMENT PANEL
GRAY CENTER INSTRUMENT PANEL
ENGINE REMOTE INTERFACE WITH PARK
BRAKE INTERLOCK
BLACK GAUGE BEZELS
LOW AIR PRESSURE INDICATOR LIGHT AND
AUDIBLE ALARM
2 INCH PRIMARY AND SECONDARY AIR
PRESSURE GAUGES

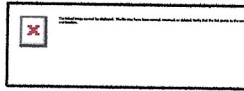




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Description	Weight Front	Weight Rear
INTAKE MOUNTED AIR RESTRICTION INDICATOR WITHOUT GRADUATIONS		
ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
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		
OVERHEAD INSTRUMENT PANEL		
AM/FM/WB WORLD TUNER RADIO WITH AUXILIARY INPUT, J1939	10	
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		





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Description	Weight Front	Weight Rear
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
BUMPER PAINT: FP24812 ARGENT SILVER
DUPONT FLEX
STANDARD E COAT/UNDERCOATING

Certification / Compliance

U.S. FMVSS CERTIFICATION, EXCEPT SALES
CABS AND GLIDER KITS

Secondary Factory Options

SHIP TO FONTAINE (MOUNT HOLLY, NC) PRIOR
TO DELIVERY

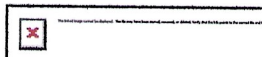
Sales Programs

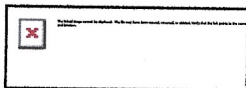
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CUSTOM PROGRAM CODE

TOTAL VEHICLE SUMMARY

Weight Summary





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	Weight Front	Weight Rear	Total Weight
Factory Weight ⁺	7242 lbs	4197 lbs	11439 lbs
Total Weight ⁺	7242 lbs	4197 lbs	11439 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.

