

SPECIFICATION

038110 - Aluminum Dump Body Upfit For Use With a 17K Chassis

Reference: Heil Yardbird, Omaha Standard Eagle, Galion / Godwin 100, Crysteel E Tipper, or prior approved equal.

Note: " Refer to PCID 1075 for Delivery and Warranty Requirements".

Note: Complete Aluminum Dump body and components including crossmembers, long sills, ladder and fenders.

Note : All up fitting shall be in accordance with the chassis manufacturers body builders up fitter manual.

Body Shall Include The Following Equipment:**Body - Installation:**

It shall be the responsibility of the successful vendor to have the dump body mounted on the chassis(s). The installation shall be engineered and approved by the vehicle manufacturer and shall have no adverse affect upon the manufacturer's warranty. When any portion of the complete vehicle is to be installed by anybody other than the bidder or the chassis manufacturer, they shall indicate the name of the sub-contractor performing such installation and the location of their plants. The dump body dimensions shall cover the rear wheels.

Any other applicable changes required to accommodate this type unit is the responsibility of the bidder.

Frame rails shall be prepared by cleaning, priming and final painting.

The body shall be attached to the truck chassis using four (4) U-bolts, or bolt thru, lock nuts, and appropriate shear plates as required to comply with manufacturer's standards.

Body Components:

Length of body shall be 9 Feet Minimum.

Floor Thickness shall be 0.1875" thick, minimum, abrasion-resistant aluminum 5454H32. Continuously welded to all cross members, side panels and longitudinal members. Area reinforcements where necessary.

Capacity: 2 1/4 (approximate) cubic yards water level.

Side board pockets and tailgate height shall provide an additional carrying capacity.

The bulkhead shall be slotted, punched or checker-boarded to allow for visibility through the rear vehicle window.

There shall be a lever operated chute.

Body shall be fitted with a bed prop system, manufacture standard.

Hoist cylinder shall have a lifting capacity of 9 tons. Minimum. Cylinder rod shall be chrome plated.

Hydraulic tank shall be a minimum of 20 Gallons working capacity. It is the responsibility of the vendor to insure all hydraulic functions can operate uninterrupted to include all plow, body, and spreader functions.

There shall be a check valve installed in the suction line if the pump is mounted higher than the tank to ensure pump does not loose prime.

All points of movement such as lift arms, tailgate linkage, etc. shall be fitted with threaded grease fittings.

Upper telescopic cylinder pin shall have a remote grease fitting.

There shall be wheel chocks and holders per EQN-82B. Holders can be mounted on the driver's side splash guards.

There shall be a ladder to access the dump bed on the drivers side. Shall have grab handles to provide three points of contact when entering the bed. Steps shall be Bustin aluminum No. NST4 full size, or Bustin 628 steel, or Ohio Grating or IKG Industries serrated swage lock, with end band. The outer step edge must be serrated in lieu of plain, smooth metal edge. All edges shall be banded (skirting) on the outer perimeter. Overlay is not acceptable. Grab handles shall be covered with non-skid paint (non-skid tape is unacceptable).

Tailgate shall have a height of 24 inches minimum. Shall be a double acting tailgate with offset hinges. Shall have two (2) "J" hooks welded to the tailgate for chain hangers. 1.25" diameter, greasable self-aligning top hinge pins with tapered end and with sufficient length for easy removal. Pins shall be affixed with chains to prevent loss and be non-rotating. The holding device for the tailgate shall be operated by a control lever with a safety holding chain and ring. Severe duty tailgate hardware shall be adjustable. Coal chute gate with levers and operating handle, Door to be 304 Stainless steel. Shall have four (4) tailgate banjo chain brackets, two (2) on each side, banjo brackets shall be a minimum of 1/2 inch thickness and be fully welded. Tailgate / spreader chains shall be 3/8 inch and covered with black expandable braided sleeving monofilament.

Rear corner posts On both sides, shall be full depth construction from the top of the tailgate to the bottom of the rear bolster and free of holes. Rear bolster shall be full depth and full width.

Cab shield shall cover half of the cab, continuously welded.

Body structure shall have 4" extruded structural channel cross members of equal strength on 12" centers. The body and body sub-frame shall be reinforced to withstand SEVERE duty service. IE: Dump body up while spreading salt and anti-skid material, or excavation rip rap being dropped in the bed. Heavy gussets shall be furnished at all cross members on the outside. Where not possible, they will be furnished on the inside.

Construction:

All body parts are to be electrically full welded into one integral body.

For all threaded connections at least two (2) full threads shall be visible beyond the nut.

The fuel tank fill shall be positioned in such a way to ensure the filler nozzle can be set on automatic and nozzle will support itself with unrestricted flow.

Exhaust:

All tool boxes above any exhaust tailpipe or within close proximity of muffler, DPF, etc. shall receive a heat shield plate to the box in order to protect it. Exhaust shall be extended to the outer most edge of the installed body.

Safety:

Vendor shall supply a first aid kit in a weather proof steel case that meets requirements of ANSI Z308.1-2015 Class A. The Kit shall be placed loose in the cab with a sticker to be applied to the outside of the door at a later time stating the location of the first aid kit.
REF: Arbill Industries Inc. 215-501-8450

Mud Flaps:

Mud flaps front and rear of rear tires, unmarked, full width of tires, and gusseted.
Length shall be consistent with the unloaded rear axle height, And in accordance with the PA State Inspection Laws.
The Flaps in front of the rear tires shall extend downward 3/4 of the length of the rear splash guard/mud flap, with a 1/4 length, unmarked mud flap attached for the remaining distance.
The Flaps at the rear, of the rear tires, shall be constructed of 0.1406 in (10 gauge) steel, and include a rubber flap using 3 bolts and flat steel backed plates.

Electrical:**Whelen Light Kit Part # PADOTSY6, Kit contains the following lighting.**

- 1 - R10PADOT Light Bar to be mounted to the driver's side of the bulkhead. Light bar shall be mounted on swivel base as per EQN- 210B. In no case shall the light bar be mounted on the roof of the vehicle. Light Bar, rear and side warning lights shall be on the same switch.
- 2- IONAD Lights to be grommet mounted in the grill mounted per EQN - 115
- 2- IONGROM Rubber grommets for IONAD lights
- 2 - 50R00XRD Vertical Red stop, turn, tail lights to be mounted within the rear bolster facing rearward grommet mounted Per EQN-120U
- 4 - 50A02ZAD Amber warning lights,2 to be mounted one each side of dump bed and 2 facing rearward in the bolster grommet mounted as Per EQN-120U
- 6- 5GROMMET Rubber grommets for amber warning lights and red taillights.
- 1 - M6BUD Back-up light, to be mounted between frame rails where practical.
- 1- M6BRUSH Brush guard for backup light.
- 9 - W441D Harness side mating Deutch connectors.

The above lights are supplied with male and female Deutsch connectors that shall be utilized to connect the vendor supplied harness to each light source.

Body builder to supply remaining stop / tail / turn, marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. Connections shall be water tight. All Body lighting shall be LED.

The Warning lights / Light bar shall have (1) lighted, permanently labeled toggle switch located in the dash controlling all I warning lights together

Body wiring shall be Grote, Trucklite, or Prior Approved Equal.

License plate lighting shall specifically be a Truck light 36 series PN# 36140c LED lamp with light bracket PN#36710

There shall be no splices outside of a sealed box or fixture.

There shall be a seven-way trailer (Pin Type) receptacle mounted on rear and filled with dielectric grease. Per EQN - 80A

A color-coded electrical wiring chart and schematic shall accompany each body.

Paint:

Body priming and painting to ensure full coverage to all areas of the body

Color of the body, including inside and outside of compartments, and the bed, shall be cab manufacturer's standard safety or school bus yellow, or optional PennDOT yellow DuPont F9885 for shade. (Powder Coat, if available from factory.) **It will be the responsibility of the successful vendor to ensure color of the body matches the cab.**

All metal surfaces to be painted shall be cleaned and prepared by abrasive blasting to 1-1/2 mil profile in accordance with Steel Structure Painting Council Standard SSPC-SP-6.

A rust preventative treatment shall be applied.

Conspicuity tape on body as per EQN-127A. Red/white on sides of body and cab,

Alternating Red / Yellow Reflective sheeting shall be mounted diagonally (45 degree angle) on the entire tailgate as per EQN-120N.

ICC Rear Under ride Protector, hitch and ladders shall be painted black.

Hitch:

There shall be a hitch installed, Per EQN-202B, there shall be provisions made to hook up a breakaway cable. The Upper Portion Of Hitch Shall Be Painted With Non-Skid Paint If extending to or outside body perimeter and is likely to be stepped on. Below hardware shall be supplied in truck cab. Hitch and below receiver parts shall not interfere with any part of the bumper or body no matter what configuration on the mounting plate is used.

	Buyers Products (216-974-888)	Wallace Forge Company (800-328-1203)
Combo Ball Hitch W/ 2 inch Hard Chrome Ball:	BH8-2000	23071911
Pintle Mounting Plate:	PM-87	2200170 PADOT
Bolt Kit:	8520	2117240
Hitch Pin:	HP6253 WC	HP58412

Hydraulic System and Console**Reference: Lancaster Truck Body - LT.B. Control Pro, Certified Cirius Technology -**

Shall be Central Hydraulic System – Dump body and spreader functions to be operated by a single transmission mounted PTO and pump shall be rated at 15GPM @ 1500 engine RPMs. All valves shall be fully proportional electric over hydraulic

Plow to operate off of self-contained electric hydraulic power unit that is mounted on plow frame.

No hydraulic lines or valves to be installed in the cab.

Control console shall include all auxiliary light functions, pump switch, beacon light, spinner spot, plow/headlights, main on/off, aux. mounted in between the drivers and passenger seat.

Spreader control system shall be provided with blast, auger reverse and pause functions with individual switches. Auger (open loop circuit) and spinner shall have automatic mode function to operate proportionally off of ground speed to start and stop with chassis.

Controller to have quick connects for ease of removal .

All hydraulic controls valves to be fully proportional, electric solenoid for body hoist and spreader controls.

There shall be 1 joy stick with interlock for body hoist up and down and 1 hand held controller for all plow functions and shall have a holder on the hydraulic control console when plow is not in use.

Drawings

EQN-80A	Revised	08-02-18	sheet 1	WIRING DIAGRAM
EQN-82B	Revised	07-22-15	sheet 1	CHOCK AND HOLDER
EQN-115	Revised	07-03-12	sheet 1	GRILL MOUNTED WARNING LIGHTS
EQN-120N	Revised	08-14-12	sheet 1	TAILGATE REFLECTIVE SHEETING / WARNING LIGHTS
EQN-120U	Revised	08-14-12	sheet 1	17K DUMP TAIL GATE LIGHTING
EQN-127A	Revised	01-02-09	sheet 1	CONSPICUITY TAPE
EQN-202B	Revised	07-27-16	sheet 1	HITCH: WEIGHT DISTRIBUTING
EQN-210B	Revised	04-05-12	sheet 3	HIGH VOLTAGE WARNING LIGHT (BRACKET)

Options

Spreader, Under Tailgate: (Installed) SEE ATTACHED SPREADER SPEC

Snow Plow, Adjustable Angle, or Straight reversible blade with a Minimum 9 foot moldboard: (Installed)

Reference: Boss, Power V, Western MVP Plus, Western Pro Plus or prior to bid approved equal).

Cab controls for angle and lift mechanism.

Moldboard markers (wands).

Auxiliary snow plow lights, turn signals, shall be hitch mounted and reinforced.

The snow plow shall be mounted on specified chassis with all accessories

Quick attach ends for hydraulic hoses.

Trip mechanism.

All electrical circuits shall be fused.

Front moldboard snow deflector.

Plow frame shall be furnished and installed and shall be in concurrence with the truck manufacturer's engineering approval. Factory snow plow prep package shall be supplied.

Snow plow lights shall be furnished and mounted.

Manufacturer's standard color.

Installation Practices

All lights shall meet all Federal and State regulations.

All wire splices shall be insulated with heat shrink materials or removable connectors that create a water tight connection.

All wires shall be securely fastened with no wires hanging or protruding where they are exposed to the risk of damage.

All junction boxes shall be located inside of the utility body, in a location that will not compromise storage space. For easy accessibility, junction boxes must not be obstructed in any way.

All electrical connections shall be treated with di-electric grease. All wiring shall be secured using "P" type clamps at intervals not to exceed 12" between securing points.

All wires shall be in a protective covering and protected from chaffing, rubbing and getting pulled or torn from external sources.

Any alterations / relocation to fuel fill, DEF tank, exhaust, Etc. to allow installation of body shall be made in a professional manner using new materials.

Any place steel and aluminum contact each other Mylar or an approved equal shall be used as a buffer.

Laminate rubber is unacceptable. All vertical and horizontal seams of the body sides shall utilize full penetration welds in accordance with standard welding practices as set forth by the American Welding Society and sealed water tight to create one integral body. All

corners shall be angled or rounded for safety and all weld splatter removed. All mounting procedures shall be in accordance with NTEA standards.

The use of any of the following items or practices WILL NOT BE ACCEPTED.

- Non-steel fittings on hydraulic pressure lines.
- Excessive use of elbows on hydraulic lines.
- Use of thread tape on hydraulic fittings.
- Use of galvanized fittings or components on hydraulic system.
- Improper hydraulic line size.
- Use of high-pressure hose for hydraulic suction line.
- Scotchlok-type wire splices.
- Non-insulated wire splices.
- Improper hose or wire routing near exhaust, over-sharp edges or through holes without grommets, or sharp edges.
- Improperly prepared, primed and painted surfaces.
- Non-fused electric circuits.
- Hydraulic circuits without pressure relief protection.