

(064900) Truck-Tow, 19,500 lb., Standard Cab and Chassis
With Automatic Transmission

Truck, Tow, 19,500 lb. (064900)

This dual-rear wheel model chassis shall be a manufacturer's standard cab model, which is engineered, certified and capable of towing. 19,500 lb. GVWR minimum with the manufacturer's rating certified on door. Chassis shall accommodate the specific body options referenced within this specification.

NOTE: REFER TO PCID 1075 FOR DELIVERY AND WARRANTY REQUIREMENTS

Unit Shall Include the Following Optional Equipment:

Alternator:	Manufacturers largest / heaviest duty available.
Battery:	Manufacturers largest / heaviest duty, dual unit configuration.
Air bags:	Driver and passenger.
Air Conditioning:	Standard.
AM/FM Radio:	Standard.
Power Windows/Locks:	Standard.
Bench Seat:	Foam padded bench seat, with seat belts. (Cloth unacceptable).
Daytime Running Lights:	(Aftermarket acceptable)
Blue Tooth:	Standard

Diesel Engine:	Manufacturer's highest available horsepower and torque rating, standard or optional diesel engine, to include, immersion in-block type engine heater for water cooled engines, with water-proof plug and flush mounted in front sheet metal, engine oil cooler.
Fuel Tank:	Manufacturer's highest capacity standard tank, frame mounted (Tank filler positioned on body side panel to ensure that filler nozzle can be set on automatic and nozzle will support itself, with unrestricted flow and clear top deck ob body).
Limited Slip Differential:	Standard.
Lubricants:	Shall be synthetic where available, with drain plugs identified or painted red. (Engine oil excluded).
Mirrors:	Mirrors shall be manufacturer's standard heavy duty convex mirrors (aftermarket convex spot mirror acceptable) with extendable arms. Mirrors shall be heated with a switch mounted conveniently to the operator. OEM or aftermarket acceptable. (Reference: Power Vision Mirrors, www.powervisionmirrors.com .)
Paint:	Factory standard white, body shall be matched to cab shade of factory white, Option to paint Hot lime green, Ref: PPG color 46973.
Rear Axle Ratio:	Shall be 4:88 to and ensure the 19,500lb chassis rating
Suspension:	Multi-leaf design-tapered. 13,680 lb rear with helper springs and 7,000 lb front axle. Additional load suspension must be added. Timbren load boosters or equivalent.
Rearview mirror:	Manual day/night.
Tinted Windshield:	Manufacturers Standard
Tires:	Truck and Body Company shall ensure that proper sized tires and wheels for GVWR are supplied. Tires shall be radial, all season mud and snow type tread on drive axle and highway all season on steer axle. There shall also be clearance for tire chains on rear tires.
Transmission:	Automatic heavy duty with PTO provisions. Largest available transmission cooler. Note: Electric shifted PTO and hydraulic pump shall be transmission mounted and be for use in stationary and mobile applications.

Unit Shall Also Include the Following Equipment:

- There shall be step running boards installed, REF: (BUSTIN PN# RB003) or prior approve equal must be length of cab entry area on both sides. REF: EQN-170 Drawing
- There shall be an ECCO model 450 back-up alarm, shock mounted.
- All switches shall be permanently labeled and backlit.
- There shall be a 4.5 inch LED dome light, with switch, installed and centered over the front seat that can operate with the ignition switch in the off position. (Ref: Optronics part number# OPTILL22CB or approved equal).
- There shall be two (2) front tow hooks, installed.
- There shall be an emergency triangle warning kit, with storage box, mounted in cab.
- Manufacturer's standard heavy-duty rubber floor covering.
- Full length clear hood mounted bug deflector (must be able to accommodate lettering).
- Heavy-duty cooling system.
- Lug wrench and handle.
- Standard jack and hydraulic jack (2 U.S. ton, Matco part number – AM200FJM or equal)
- Must have tow bar attachment device capable to be installed as needed on hydraulic crossbar for moving vehicles with no wheel/tires and have Grade 70 chains with hooks and T-hooks.
- Three (3) 5-GAL plastic cans (mounted).
- Plug-in jump start kit with 25 foot cables.
- 110 volt 2500-watt inverter for frequent use, securely mounted in rear compartment with 50 feet heavy duty cord reel, self-retracting with roller fair head. Cord reel shall be located inside a body compartment on the left side (driver) rear.
- Air compressor shall be minimum 150psi. high flow with a minimum 2.0-gallon tank. Compressor shall be mounted inside body compartment with all required safety features, wiring and plumbing to be operational. Tank drain shall be plumbed to exterior of body. REF. VIAIR high flow air source kit. There shall be 50 feet .50inch diameter heavy duty rubber hose reel, self-retracting. Hose reel shall be located inside a body compartment on the left side (driver) rear.
- **Note: Electrical cord and air hose shall exit the rear or top of body via roller fair head and provisions shall be made to include a pre-approved weather proof cover for the outlet and hose coupler. Ref. EQN-138**
- Mud flaps, front and rear, unmarked, total length of rubber shall be in accordance with PA state laws. Rear mud flaps shall cover both rear tires.
- One (1) pair snatch blocks.
- Safety chains shall be mounted to the wrecker body.
- There shall be a 3 Ton snatch block included

(064900): TOW TRUCK BODY: Tow truck body shall be furnished as per EQN-140, and the specification below.

- Min RBM 280,000 in-lbs, frame height to be 37" = + / - 1"
- Body construction to have min 12" deep fabricated sill channels to be mounted to truck frame.
- Body to be of modular three-piece design and structure.
- Body sides, (tool boxes to be of aluminum design).
Body to be color matched to cab (base coat /clear coat or urethane)
- Hydraulic tank to be part of sub frame and to be located near front of body for additional weight ballast. Oil Capacity to be 10 gal or greater with dipstick or sight **gauge, clean out cover or spin on filter, breather and heavy-duty magnetic drain plug(s).**
- Must have easy access to hydraulic controls from top of body for repairs and or inspection.
- All side compartment tool boxes must have full perimeter weather seal and employ hinges with lanyards for support and be of heavy duty design to except weight loads of

200Lbs or more. All tool boxes to have water drains. Latches must be of stainless steel rotary design. All tool boxes must have drip edge over doors.

- 24" tunnel tool box shall be affixed to chassis for wheelbase configuration. 24" Tunnel design tool box shall be made of aluminum and shall have all aluminum swing outdoors. All tool box doors to be keyed alike.
- All cabinets or compartments shall can store flammable or hazardous materials such as (gas cans, aerosol cans, oil containers, compressed gas cylinders, paint cans etc.) There shall also be a sticker placed inside the right front compartment door explaining the vented tool boxes. REF: EQN-1089A
- Compartment lighting. Each compartment shall have Vista Compartment lighting system (Tel: 219-264-0711). The 3/8 LED rope lighting sections shall be mounted on the inside of each compartment door and shall occupy space on the left, top and right of each compartment. Rope sections shall extend full length of compartment on left and right sides. All wiring shall be secured using "P" type clamps 12" maximum between securement. The power switch shall be illuminated dash mounted with 1 switch turning all compartment lights on.
- Body must have outside dual controls and an electronic lanyard remote control inside cab with 10' long cable for complete wheel lift operation while in motion. Must also have provisions for add-on wireless controls without changing existing valving.
- The boom of the truck needs to be of integrated design and have recovery capabilities, capacity to be min 8,000LBS.
- A dual cable hydraulic planetary winches with 9,000lbs capacity or greater shall be installed. 3/8" X 100 ft cable minimum standard with approved tensioner device and free wheel capabilities.
- Boom must have Hydraulic telescoping capabilities of 63" or greater. Boom lift cylinders must have a min bore of 3.50" with chrome shaft of 1.75" min STD and to be of dual lift design.
- Hydraulic system shall be a transmission driven PTO pump. Regardless of design, hydraulics shall be on demand live hydraulics always stationary or mobile.
- Truck chassis must have high idle control from cruise control or other approved electronic devices.
- Hydraulic system must use counterbalance valves to provide smooth operation and load holding when not in use.
- Wheel lift crossbar must employ hydraulic style "L" arms for attachment to the towed vehicle wheels or frame with a gear driven flow divider valve keeping arms synchronized under use. The wheel lift crossbar must be no higher than 3" and of setback design to provide maximum durability and clearance of towed vehicle components. Crossbar width shall be a min of 84" wide. All hydraulic hoses for under each must be totally concealed in a flexible track system and must not be exposed to the work area or under the motor vehicle when in use.
- L Arms must be of 155-degree rotation design to allow hook up of flat tires, and must be capable of clamping tires from 0" to 22" wheels. Wheel lift crossbar must include additional adapter package for using crossbar as a tow bar/sling for recovery work and to include all approved grade 70 chains and attachments. The under-lift extension cylinder must have a min reach of 70" and employ cushioned type hydraulics to allow self centering of the crossbar after use and returning to idle position for traveling in a vertical stored position. Crossbar must have full tilt capabilities as well as negative tilt of 10 deg should conditions prevail use. Body should employ dual safety chains attached to body by grade 8 bolts and fasteners or greater. Wheel lift must be able to accommodate trailer tow capabilities. Safety straps or basket straps for wheel lift will be required to handle all wheels to 22' diameter. Two pairs will be required (1) car set (1) truck/suv set.
- All pivot points to wrecker body and crossbar shall have independent lubrication points and have a reference manual enclosed in the delivery package for lubrication points.
- Truck chassis shall be equipped with wrap around rubber coated push bumper w/ grille guard painted to mach cab.

LIGHTS:

Whelen Model PASYS15 Ref. EQN-139

- Two (2) R-10 light bars, mounted to top outside edges of arrow board stand.

- Four (4) M6BTDD - stop, tail and turn with brush guards. Two (2) shall be mounted to the rear of the body and two (2) mounted to the rear bottom of the arrow board stand.
- Four (4) M6AD - amber warning with brush guards. Two (2) shall be mounted to the rear of the body and two (2) mounted to the rear bottom of the stand.
- Two (2) M6BUD - back up with brush guards, mounted to the rear of the body.
- Four (4) TLIA amber warning, flush mounted. Two (2) shall be mounted to the front grille and one (1) to each side of body.
- All amber warning lights shall be controlled with one permanently labeled light switch mounted in the dash
- Four (4) micro pioneers flood lights. Two (2) shall be mounted to the rear, below the body and two (2) to the rear bottom of the arrow board stand. Upper (arrow board stand) two (2) lights and lower (below body) two (2) lights shall have separate permanently labeled, lighted switches.
- One (1) pioneer flood work light with four mounting brackets. One (1) bracket lose in side compartment (to be mounted by receiving county) for storage. One (1) bracket shall be mounted to the front push bar bumper. Two (2) brackets shall be mounted, one to each side on top deck by wrecker controls. Light plugs shall be near light brackets. REF. EQN-139
- Magnetic tow lights with plug-in connector. Four prong plug shall be mounted in the rear of the wrecker body.
- 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.
- There shall be a Truck-Lite Model# 36140C LED license plate light with light bracket PN# 36710 (Installed).
- License plate bracket rear, securely mounted to prevent damage.
- Body wiring shall be Grote, Trucklite, or Prior Approved Equal.
- Body builder to supply remaining marker and ICC lighting, they shall be protected against damage and shall also be shock mounted. There shall be no splices outside of a sealed box or fixture.
- Connections shall be water tight. All Body lighting shall be LED.

Vehicle Mounted Arrow Board: Ref. EQN-139

The vehicle shall be equipped with a programmable (directional arrows) LED arrow board that pivots 90 degrees controlled within the vehicle by a remote-control box. The board must be capable of being pivoted electrically by the operator. The board must be able to withstand vehicle speeds up to 65mph in the open or closed position. Any comparable board will be accepted but must first approved by PennDOT on PA Bulletin 15.

Only models that have been reviewed in accordance with this specification and for which a Certificate of Approval has been issued by the Department shall be used or offered for sale or use on any public highway within the Commonwealth. Ref: Bulletin 15, Section 901.

Arrow board manufacture must have a repair facility within Commonwealth. Unit must be approved and listed for use on PA Bulletin 15.

The 30 X 60-inch arrow board shall be corner post mounted, incorporated into the reinforced body sub frame. Arrow board stand shall be suitable to mount required lighting and GPS antenna. Ref. EQN-139.

LABELING:

- Boom – “PARKWAY SERVICE PATROL”
- Doors – “PARKWAY SERVICE PATROL”
- Bug screen – “PARKWAY SERVICE PATROL”
- Stinger – “PENNDOT”

SAFETY:

- All lighting to be FMVSS 108 Lighting standard specification.
- The body and cab shall have conspicuity tape as Per EQN-140, sheet 1.
- The rear of wrecker body shall have RED/YELLOW reflective sheeting mounted at (45-degree angle) as Per EQN-140
- Any area likely to be stepped on shall be covered with non-skid paint, tape is unacceptable.
- The exhaust shall be diverted away from driver when connecting a downed vehicle to avoid asphyxiation of the operator; system shall not interfere with the operation of the body and equipment mounted on the chassis.
- Vendor shall supply First aid kit (Arbil First Aid Kit PN# SF0000215) no substitutes.
- There shall be a minimum 5.0 LB. ABC type fire extinguisher, rechargeable with vehicle mount, installed in the cab for easy and quick access.
- There shall be 2A:10B: C fire extinguisher, rechargeable and mounted on body.
- There shall be a towing and hauling information decal or plate affixed to inside of cab, as per EQN 303.
- Counterbalance holding valves on both tilt & lift cylinders.
- Load check in all control valve work ports.

- 10-micron hydraulic filter installed in the return line with "service filter" over 25 psi pressure indicating gauge.

MANUALS

- The successful vendor shall furnish all applicable manuals at time of unit delivery:
- The manuals listed shall be official O.E.M. publications supplemented with technical manuals for all components as published by sub-vendors/manufacturers.
- Parts Manual presented must be a relative to "all" items utilized to build these units, with appropriate part numbers.
- Operator's manual per unit
- The following manuals shall be supplied as listed below
 - Parts
 - Service
 - Engine
 - Transmission (Automatic or Manual)
 - Body and Sub-frame (Parts and Service)
 - Complete set of manuals for any additional items/equipment added to a piece of equipment.
- Manuals may be supplied alone or in any combination as listed below
Online @ Manufacturers website.
Unprotected CD/s that may be installed on PennDot's Intranet

OPTION: FLOCS System per EQN-351A.

OPTION: **STATE WIDE RADIO:**

GPS Combo Radio Antenna: There shall be a roof mount base with built-in GPS, PCTEL model GPPB-204-54-12-S1-M1 and an elevated feed antenna, PCTEL model BMUF7603. Assembly shall be mounted on a vendor supplied/installed stainless steel fender bracket. The fender bracket shall be mounted on the driver's side of the vehicle and it shall be mounted on the inside of the engine compartment with the base extending out over the top of the fender. Existing fender holes shall be utilized to accommodate mounting, with no holes drilled in the exterior fender surface. There shall be no sharp edges and it shall not interfere with the opening/closing of the hood. The antenna cable shall be routed to the floor area between the seats. It shall be properly secured and protected against heat/road splash. There shall be a minimum of 4 feet of antenna cable coiled at the base of the floor to allow for connection of a radio. Antenna shall be prewired with a MINI - UHF MALE connection. (No substitute, standardization).

Power Distribution Center: There shall be a 4-way power/ground distribution center located on the underside of the dash for connection of our state radio. The lugs shall be configured in the following manner: (1) lug shall be a 30-ampere constant hot circuit, (1) lug shall be a 10-ampere ignition controlled circuit. (2) lugs shall be chassis ground. All connections shall be enclosed in a weatherproof enclosure.

DRAWINGS:

EQN-104	Revised	08-07-08	sheet 1 of 3	TOW TRUCK
EQN-303	Revised	11-03-06	sheet 1 of 1	DECAL TOWING AND HAULING
EQN-351A	Revised	06-19-13	sheet 1 & 2 of 2	FAST LUBE OIL CHANGE SYSTEM
EQN-140	Revised	7-18-16		TOW TRUCK
EQN-139		5-26-16	2 sheets	LIGHTING SYSTEM
EQN-170		7-19-16	1sheet	RUNNING BOARDS
EQN-138		7-21-16		HOSE AND ELECTRICAL COVER
EQN-1089A		6-18-18		Hazardous storage sticker

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