

## Mobile Drone Trailer Specifications

**Trailer built from ground up, cargo trailer conversion NOT acceptable**

Width	7 Feet 9 Inches
Length	23 Feet 7 Inches
Exterior Height (with AC)	11 Feet 2 Inches
Ground Clearance (To bottom of frame)	<b>17 Inches MINIMUM</b>
Interior Height	7 Feet 5 Inches

### Weights:

Gross Vehicle Weight	6300 lb.
Axle Weight	5585 lb.
Hitch Weight	715 lb.
Gross Vehicle Weight Rating	10,400 lb.

***A certified weight slip must be delivered with the trailer***

Tires: Steel Belted Speed Balanced Radial with Brushed Aluminum Rims

Size: ST225-75-R15

Spare: Spare tire installed under the trailer

### 1. FRAME

- Must comply with DOT Specifications and have a rated capacity of 12,000 lbs. GVW, with Dexter Double Eye Leaf Spring Suspension (Torsion axles not acceptable) and utility type hubs and drums.
- Frame rails: 2" x 6" x 3/16" steel tube running from the hitch point to the bumper.  
Frame height to bottom of frame from ground: 17" (No Exceptions).
- Cross members: 2" x 4" x 3/16" steel tube connecting frame rails together. Cross members must be solid, no holes to compromise strength.
- Hitch A-frame: 2" x 6" tube construction with two (2) 2" x 6" tube cross members, eliminating any tensional stress at the most critical point of load.
- Heavy-duty leveling jacks bolted to each corner of the frame rail, stabilizing all 4 corners of the trailer. Leveling jacks must include a roller-bearing assembly for smooth and easy operation, and double lead, acme thread drive screw so the jack rises quickly, and the crank handle turns easily. Rust-inhibitive E-coating on the jack and zinc coating on the crank handle to ensure long life. The leveling jacks must be operated with a 12-volt motor kit which provides stabilization at the push of a button. Sealed motor with easy access to manual override and designed to quickly lower the jack to the ground or raise it back to the closed position. An auxiliary battery for the electric jacks must be installed on the front hitch.
- Steel tube floor frame center support: 1-1/2" x 1-1/2" x 1/8" running from front to rear, on top of the steel tube cross members, to eliminate floor sag and add structural integrity to the frame and floor structure.

- Frame must be equipped with SAE (Society of Automotive Engineers) approved safety chains, rear skid wheels and a two (2) deep cycle marine-style battery pack. A 2-5/16" adjustable ball coupler must be installed.
- Electric hitch jack: 3,000 lb. hitch weight capacity with tamper proof cut-off switch located on the hitch.
- Frame paint system: three coat process consisting of one (1) primer coat and two (2) gloss black finish coats using the highest quality Sherwin Williams's industrial paint available.

## **2. FLOOR**

- 2" x 4" wood floor joists placed on 16" centers, fully supported by both frame rails, eight (8) heavy tube cross members and a heavy steel tube center support (1-1/2" square steel tube) that runs the full width of the floor.
- Reinforced poly vapor barrier between the frame and the floor structure, wrapping up over the floor framing to provide a barrier to keep all moisture out.
- Full thick fiberglass insulation (foam board not accepted) filling the space between each floor joist.
- On top of the floor joists: 3/4" thick tongue and grooved oriented strand board, glued with one-component Bostik urethane heavy-duty construction adhesive, and screwed down every 8" wherever it touches a wood floor frame member.
- Commercial grade flooring with an embossed coined texture, installed wall to wall (gray in color).

## **3. SIDEWALLS & INTERIOR WALLS**

- Sidewalls: constructed with 2" x 3" vertical dado studs 16" OC, with six (6) 1" x 3" horizontal members running from front to back.
- Sidewall studs, floor joists and roof trusses must be aligned on 16" centers for strength and construction integrity. Hurricane straps must be used as an additional measure of reinforcement to secure the roof structure to the sidewalls and the sidewalls to the floor structure.
- Fiberglass insulation (foam board not accepted) installed on the sidewalls, front, and rear of trailer.
- Interior walls covered with pebble finish .090" fiberglass reinforced plastic (FRP) lining (white in color).
- Walls must be able to be easily cleaned with a mild detergent and water.

## **4. ROOF**

- Roof trusses: 2" x 6" domed rafters using an engineered roof truss system, with the top of each truss arched over three vertical posts and locked together using 10 gang plates on every truss. Fiberglass insulation installed between each rafter.
- Trusses installed 16" O.C. in the roof framing and doubled trusses at the air conditioning opening.
- Radiant barrier installed over the roof trusses. Double-sided 99% pure aluminum woven material laminated with a fire-retardant adhesive to a full mil tear resistant polypropylene membrane.
- Roof decking: 7/16" OSB bonded to the roof trusses with premium urethane adhesive and mechanical fasteners.
- One-piece seamless commercial-grade rubber roof membrane installed over the roof, with a 12-year limited warranty issued by the manufacturer.
- All mechanical openings on the roof must be sealed with a self-leveling sealer.

## **5. SAFETY**

- Double-wide entrance steps welded to the frame and bolted to the floor to serve the entrance door, with no-slip strips on the steps.
- 12-volt safety light located beside the entrance steps.
- LED brake lights, taillights, backup lights, clearance lights and courtesy light by the hitch area.
- Universal 7-way male hitch connection on power cord for the required DOT lighting.
- Folding stainless steel handrail system installed at the entrance door, which folds and locks to the side of the trailer when not in use.
- All exterior windows must be manufactured out of safety glass.

## **6. AXLES & BRAKES**

- Dexter 5,200 lb. round tube straight tandem axles and 4-wheel electric brakes (12" x 2" electrically operated).
- Braking system wired with a breakaway switch, locking the 4-wheel electric brakes in the event of a tow vehicle and trailer separation.

## **7. EXTERIOR**

- Exterior covered with high gloss gel-coat seamless fiberglass (white in color).
- Lower front rock guard constructed of polished aluminum sheet with a diamond tread plate pattern.
- Lighted license plate bracket.

- Full-length rain gutters, with extensions, on both sides of the trailer.
- 8' x 16' electric 12v awning installed on the curbside.
- Four (4) level indicators installed on the exterior corners.
- Wheel wells constructed of ABS.
- Three (3) aluminum rollup doors (**AMDOR locking roll up doors - NO exception**) installed on the exterior to house two (2) TV's and one (1) phone charging station.

Sizes: Two (2) 65" x 52" and One (1) 32" x 42"

## 8. DOORS & WINDOWS

- Fiberglass out-swing entrance door (36" x 76") with 34" clear width opening. Electronic keypad lock, deadbolt lock, and metal door catch.
- Radius corner frosted safety glass window installed in the door.
- 36" x 22" radius corner slider window is installed roadside above workstations, including an accordion style day/night shade.

## 9. ELECTRICAL & LIGHTING

- 3 prong removable electric inlet rated at 50 amps providing electricity to the trailer. Must include 25' power cord.
- Solid-state 80-amp converter providing ultra-clean DC power that is free from "spikes" or "surges". With no load, the output voltage must be 14.0 VDC, recharging the 12-volt battery to 100%, with optional timed voltage setback for long-term float service without over-charging.
- In-line surge protection system providing complete protection between ground, neutral and phase.
- 12 volts disconnect switch installed on the front hitch, which shuts down all 12 volt operated equipment to prevent battery discharge.
- Two (2) exteriors 110 volt duplex G.F.I. protected receptacles with self-closing waterproof duplex cover. One (1) roadside and one (1) curbside.
- Interior of trailer illuminated with 18" LED 12-volt interior lighting. Qty 6
- Combination 120/12v breaker panel installed with 50-amp main breakers.
- Two (2) 32" LED TV's (Samsung or Equal) installed above the workstation. HDMI cables included.

- Two (2) 55" LED TV's (Samsung or Equal, 120hz, min 1080p) installed in exterior cabinets. TV's must be connected to external sound bars (Samsung or Equal). HDMI cables included.
- One (1) phone charging station installed in an exterior cabinet

8 Power Cables Compatible with Most Devices

1 Large & 6 Small Device Pockets

(3) Micro USB Cables

(3) Apple Lightning Cables

(2) USB Type C Black Braided Nylon Cables

- Honda EU7000 generator installed on the front hitch, enclosed by a removable treadplate protective box.

#### 10. INTERIOR:

- Workstations: Designed to comfortably accommodate two (2) personnel. One counter (24" x 115") constructed of high impact laminate and supported by 1" x 3" aluminum tube base.
- Aluminum overhead cabinet with spring loaded upswing doors coated with **white board paint** for use as a dry erase board. Two (2) Duplex outlets must be installed in the overhead cabinet.
- **Each** of the two (2) workstations must have the following located above the counter in a wire chase with removable cover (outlets and CAT6 jacks in wall not acceptable):  
Two (2) (CAT-6) connections terminating in the overhead cabinet.  
One (1) 110v/USB duplex outlet  
One (1) Task Chair secured to counter or floor  
One (1) Duplex outlet installed **under** the counter (not in chase)
- Aluminum storage cabinet with 2 doors installed in the interior front roadside corner (Size 48W x 72H x 15D).
- Three (3) removable boxes installed for access to the rear of the two (2) TV's and the phone charging station. Boxes constructed of ¾" plywood and covered with the same pebble fiberglass as the walls.
- Three (3) 20 amp duplex outlets installed interior (one (1) next to the each of the three (3) removable boxes) Six (6) outlet surge strip plugged into two (2) of the three outlets (the ones for the TV's).

#### 11. HEATING, VENTILATION & AIR CONDITIONER (H.V.A.C.)

- One (1) 110-volt 1000w electric wall heater must be installed.
- Roof ventilation system with one (1) vent line Northern Breeze 800 c.f.m. power vent (or equivalent), which has an intake/exhaust mode and variable speed.
- All vents must be installed higher than the bowed roof to eliminate water traps and puddling.
- Dometic 13,500 BTU Air Conditioner/Heat pump (or equivalent) must be installed on the roof and ducted throughout the trailer. (The Dometic appliance has a quiet operating horizontal rotary electrical compressor and a fan canopy to protect against damage from the elements.)

**12. Custom Exterior Graphics \$1,500. Allowance**

- 3M vinyl graphics with Department name/patch, custom logos, custom designed.
- Must provide 4-color proof prior to installation of the graphics.

**13. NATM**

- Electrical, Plumbing, Fuel System and Fire and Life Safety Provisions of this vehicle must be manufactured per the provisions of the National Association of Trailer Manufacturers (NATM).

**14. STANDARD OPERATING GUIDELINE**

- A Standard Operating Guideline (SOG) must be included with the trailer.

**15. CERTIFICATE OF ORIGIN**

- A Certificate of Origin (also known as an MSO), which lists the customer as the purchaser, must be delivered with the trailer.

**16. WARRANTY**

- Minimum one (1) year warranty for the overall structure of the unit. Certain components may carry warranties beyond one year such as the rubber roof material.
- Bidder must additionally submit:
- CAD drawings of the proposed unit.
- Contacts of three references from customers who purchased similar ground-up constructed trailers from the bidder.
- Must provide documentation and photographs of three similar trailers constructed by the bidder
- Customer requests to physically see and enter at least one similarly constructed trailer by the vendor within the boundaries of the Commonwealth of PA, or within reasonable driving distance from Harrisburg, PA (180 miles).