

Body Configurations



- **Standard Quint**
- **Texas Chute Out/Side Stacked Hose Bed**
- **PUC**
- **No Pump/No Tank**

Standard Quint



Texas Chute Out





No Pump/No Tank



Torque Box



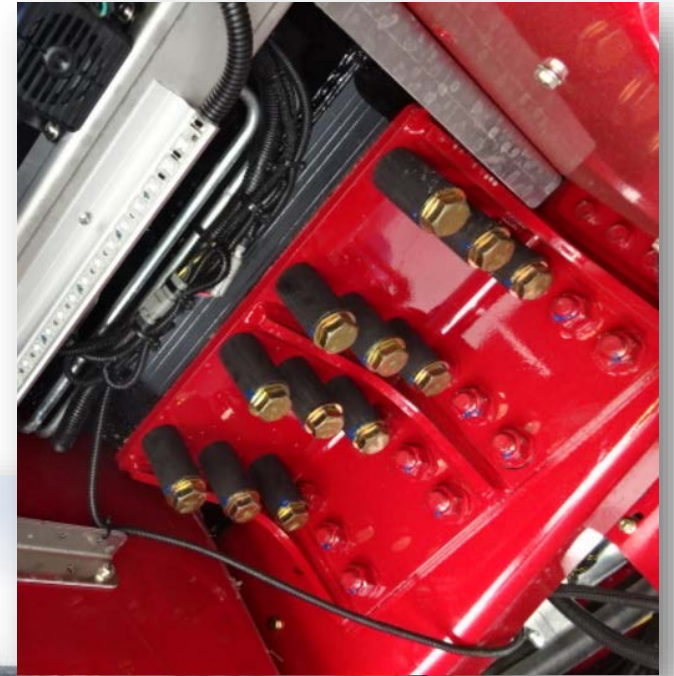
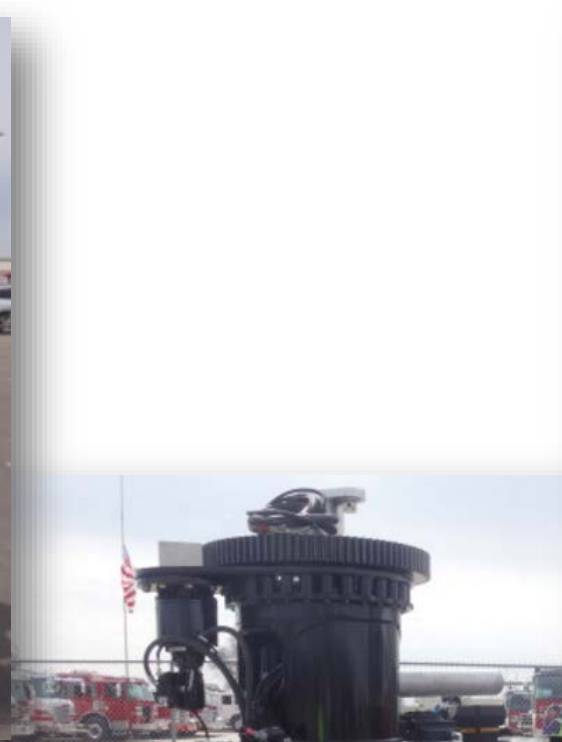
AERIAL TORQUE BOX/PEDESTAL

The pedestal assembly will be a welded assembly made of high strength 0.25" plate. The vertical member will be a .375" reinforced wall cylinder with a 28" outside diameter and will connect the rotation bearing mounting plate to the lower substructure.

The pedestal assembly will be bolted to the chassis frame with .88" diameter Grade 8 bolts, and will be utilized to mount the outrigger jacks and reservoir for the aerial hydraulic system.



Torque Box



Torque box is mounted to the chassis frame rails in 4 locations (one each side under outriggers and one each side behind rear axle).



Turntable



The turntable is pretty large and the first step incorporates a storage compartment for ladder belts, etc.

Turntable Access



Fold-out step assembly – Was rather difficult to pull out and is very sensitive to be stowed perfectly or triggers sensor in cab.

The turntable is accessed from the side of the truck (driver's side only or both sides).



Turntable Access



There's not much room to step down onto when dismounting the turntable

Turntable Access – Step Height



The bottom step will have a step height not exceeding 24.00" from the ground to the top surface of the step at any time.



If the unit is set up on an incline, step height can become compromised. That bottom step looks much higher than 24".

It appears they need a dedicated storage compartment the chair.....

Operational Limitations



GREEN AREA – GOOD
RED AREA – “DEAD ZONES”

These red areas located at the 10 o'clock and 2 o'clock positions when working off the front of the rig are “dead zones”. If using the aerial at full extension, the truck will not let you fly the aerial device into this zone without first retracting it to **approximately 93 feet**.

Operational Limitations



If you are unable to level your apparatus within the green range, you may set up within the yellow range, but only with reduced load chart capacity. If either the Grade or Slope apparatus angle indicators are outside the green range but still within the yellow range, then the device can be operated at 50% (half) capacity. This means that you must cut each of the load values in the load chart in half. For example, if the load chart indicates an acceptable load with 500 lbs at the mid and 250 lbs on the base, then the half-capacity values when operating in the yellow range would be 250 lbs at the mid and 125 lbs on the base. This 50% capacity condition is only safe if the apparatus is leveled within the limits shown in [Load Chart and Level Chart Information](#) of this manual.

If you are unable to set up your apparatus with the apparatus angle indicators within either the green or yellow safe limits, then the apparatus must be repositioned until it can be.

Table 3-3: Apparatus Leveling Safe Operating Limits for Full Load Chart Capacity Operating Conditions

| Level Limits for Full Load Chart Capacity Operating Conditions | | |
|--|--|-------|
| Direction | Maximum Safe Operating Angle (degrees) | Color |
| Slope (Side-to-Side) | 3.5° | GREEN |
| Grade (Front-to-Back) | 5.5° | GREEN |

Table 3-4: Apparatus Leveling Safe Operating Limits for 50% Load Chart Capacity Operating Conditions

| Level Limits for 50% Load Chart Capacity Operating Conditions | | |
|---|--|--------|
| Direction | Maximum Safe Operating Angle (degrees) | Color |
| Slope (Side-to-Side) | 5.5° | YELLOW |
| Grade (Front-to-Back) | 6.5° | YELLOW |

Aerial Pedestal Display



This is the aerial display during an overcast rainy day. It was very difficult to read the display.

Aerial Pedestal Display



This is the aerial display during an overcast rainy day. It was very difficult to read the display.

Ladder Dimensions



| | Width | NFPA Min. | Height | NFPA Min. |
|-------------------------|--------|------------------------|--------|-----------|
| Base Section | 41.87" | 18" (excluding equip.) | 25.69" | 12" |
| 2 nd Section | 34.88" | | 22.06" | |
| 3 rd Section | 27.87" | | 19.44" | |
| Fly Section | 21.63" | | 16.70" | |

Ladder Stability



This video is of Jim Garver at the tip. Notice how much it moves with very little effort.

Is this their definition of Heavy Duty?????

Ladder Finish




FOUR (4) YEAR PRO-RATED PAINT AND CORROSION

A Pierce aerial device limited pro-rated paint warranty certificate, WA0047, is included with this proposal.



Pierce Aerial Paint Warranty



|  | | | | | | | | | | | | | | | | |
|---|--|--------------|-------------|--------------|--|------|-----|--|------|-----|---|------|-----|-----------------------|------|-----|
| Fire and Rescue Apparatus | | | | | | | | | | | | | | | | |
| Four (4) Year Pro-Rated Paint and Corrosion | | | | | | | | | | | | | | | | |
| Aerial Device | | | | | | | | | | | | | | | | |
| Limited Warranty | | | | | | | | | | | | | | | | |
| 1. LIMITED WARRANTY | | | | | | | | | | | | | | | | |
| Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer: | | | | | | | | | | | | | | | | |
| Coverage: | Aerial device shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection for exterior surfaces. | | | | | | | | | | | | | | | |
| Warranty Begins: | The date of the original purchase invoice (issued when the product ships from the factory). | | | | | | | | | | | | | | | |
| Warranty Period: | Four (4) Years | | | | | | | | | | | | | | | |
| Conditions and Exclusions: | <p>This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:</p> <table border="1"><thead><tr><th>Condition</th><th>0-24 months</th><th>25-48 months</th></tr></thead><tbody><tr><td>Topcoat Durability & Appearance: Gloss, Color Retention & Cracking</td><td>100%</td><td>60%</td></tr><tr><td>Integrity of Coating System: Adhesion, Blistering/Bubbling</td><td>100%</td><td>60%</td></tr><tr><td>Corrosion: Dissimilar Metal and Crevice</td><td>100%</td><td>60%</td></tr><tr><td>Corrosion Perforation</td><td>100%</td><td>60%</td></tr></tbody></table> <p>This limited warranty applies only to exterior paint.</p> <p>Items not covered by this warranty include:</p> <ul style="list-style-type: none">(a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).(b) UV paint fade. | Condition | 0-24 months | 25-48 months | Topcoat Durability & Appearance: Gloss, Color Retention & Cracking | 100% | 60% | Integrity of Coating System: Adhesion, Blistering/Bubbling | 100% | 60% | Corrosion: Dissimilar Metal and Crevice | 100% | 60% | Corrosion Perforation | 100% | 60% |
| Condition | 0-24 months | 25-48 months | | | | | | | | | | | | | | |
| Topcoat Durability & Appearance: Gloss, Color Retention & Cracking | 100% | 60% | | | | | | | | | | | | | | |
| Integrity of Coating System: Adhesion, Blistering/Bubbling | 100% | 60% | | | | | | | | | | | | | | |
| Corrosion: Dissimilar Metal and Crevice | 100% | 60% | | | | | | | | | | | | | | |
| Corrosion Perforation | 100% | 60% | | | | | | | | | | | | | | |

This limited warranty applies only if the product is properly maintained in accordance with Pierce's maintenance and manuals and is used in service which is normal to the particular model. Routine maintenance service which does not subject the product to stresses or impacts greater than normal use is not covered. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within 30 days after the date of discovery, but in any event prior to the expiration of the warranty. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

2/8/2010 WA0047

Conditions and Exclusions:

See Also Paragraphs 2 thru 4

This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any:

Topcoat Durability & Appearance: Gloss, Color Retention & Cracking

0-24 months 100%
25-48 months 50%

Integrity of Coating System: Adhesion, Blistering/Bubbling

0-24 months 100%
25-48 months 50%

Corrosion: Dissimilar Metal and Crevice

0-24 months 100%
25-48 months 50%

Corrosion Perforation

0-24 months 100%
25-48 months 50%

This limited warranty applies only to exterior paint.

Items not covered by this warranty include:

- (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).
- (b) UV paint fade.

Egress Tip



The ladder will be designed to provide continuous egress for firefighters and civilians from an elevated position to the ground. The end of the fly section will be constructed in a manner that aids personnel in climbing off the ladder.

Sutphen egress tip is angled 20 degrees, making it easier to access a window and making it easier for personnel to climb on and off the ladder.

Tip Load



| WATERWAY DRY 35 MPH Wind Condition | | | | | | | | |
|------------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|
| | Aerial Elevation | | | | | | | |
| | -10° to 9° | 10° to 19° | 20° to 29° | 30° to 39° | 40° to 49° | 50° to 59° | 60° to 69° | 70° to 77° |
| Egress | 750# | 750# | 750# | 750# | 750# | 750# | 750# | 750# |
| Fly | - | - | - | - | 250# | 250# | 500# | 750# |
| Upper Mid | - | - | - | - | 250# | 500# | 1000# | 1000# |
| Lower Mid | - | - | - | 500# | 500# | 750# | 1000# | 1000# |
| Base | - | - | 500# | 500# | 500# | 1000# | 1000# | 1000# |

| WATERWAY CHARGED 35 MPH Wind Condition | | | | | | | | |
|---|------------------|------------|------------|------------|------------|------------|------------|------------|
| EGRESS CAPACITY IS ZERO WHEN FLOWING WATER WITH THE NOZZLE ABOVE WATERWAY CENTER LINE | | | | | | | | |
| | Aerial Elevation | | | | | | | |
| | -10° to 9° | 10° to 19° | 20° to 29° | 30° to 39° | 40° to 49° | 50° to 59° | 60° to 69° | 70° to 77° |
| Egress | 500# | 500# | 500# | 500# | 500# | 500# | 500# | 500# |
| Fly | - | - | - | - | - | 250# | 500# | 500# |
| Upper Mid | - | - | - | 250# | 500# | 500# | 750# | 1000# |
| Lower Mid | - | - | - | 250# | 500# | 750# | 1000# | 1000# |
| Base | - | - | 250# | 500# | 750# | 1000# | 1000# | 1000# |

Reduced Loads at the tip can be redistributed in 250# increments to the fly section, upper mid section, lower mid section or base section as needed.

Tip Load – Flowing Water



ZERO tip load capacity when flowing nozzle above horizontal.



| WATERWAY DRY 35 MPH Wind Condition | | | | | | | | |
|------------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|
| | Aerial Elevation | | | | | | | |
| | -10° to 9° | 10° to 19° | 20° to 29° | 30° to 39° | 40° to 49° | 50° to 59° | 60° to 69° | 70° to 77° |
| Egress | 750# | 750# | 750# | 750# | 750# | 750# | 750# | 750# |
| Fly | — | — | — | — | 250# | 250# | 500# | 750# |
| Upper Mid | — | — | — | — | 250# | 500# | 1000# | 1000# |
| Lower Mid | — | — | — | 500# | 500# | 750# | 1000# | 1000# |
| Base | — | — | 500# | 500# | 500# | 1000# | 1000# | 1000# |

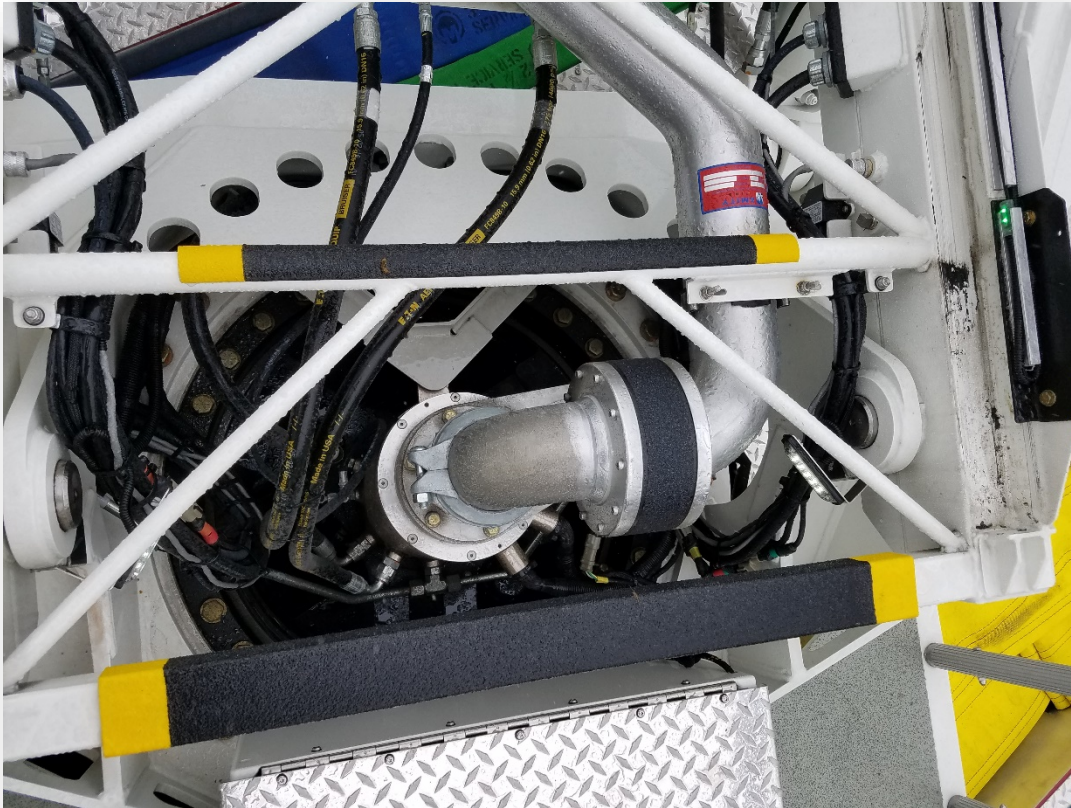
| WATERWAY CHARGED 35 MPH Wind Condition | | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| EGRESS CAPACITY IS ZERO WHEN FLOWING WATER WITH THE NOZZLE ABOVE WATERWAY CENTER LINE | | | | | | | | |

| | Aerial Elevation | | | | | | | |
|-----------|------------------|------------|------------|------------|------------|------------|------------|------------|
| | -10° to 9° | 10° to 19° | 20° to 29° | 30° to 39° | 40° to 49° | 50° to 59° | 60° to 69° | 70° to 77° |
| Egress | 500# | 500# | 500# | 500# | 500# | 500# | 500# | 500# |
| Fly | — | — | — | — | — | 250# | 500# | 500# |
| Upper Mid | — | — | — | 250# | 500# | 500# | 750# | 1000# |
| Lower Mid | — | — | — | 250# | 500# | 750# | 1000# | 1000# |
| Base | — | — | 250# | 500# | 750# | 1000# | 1000# | 1000# |

Reduced Loads at the tip can be redistributed in 250# increments to the fly section, upper mid section, lower mid section or base section as needed.

Waterway

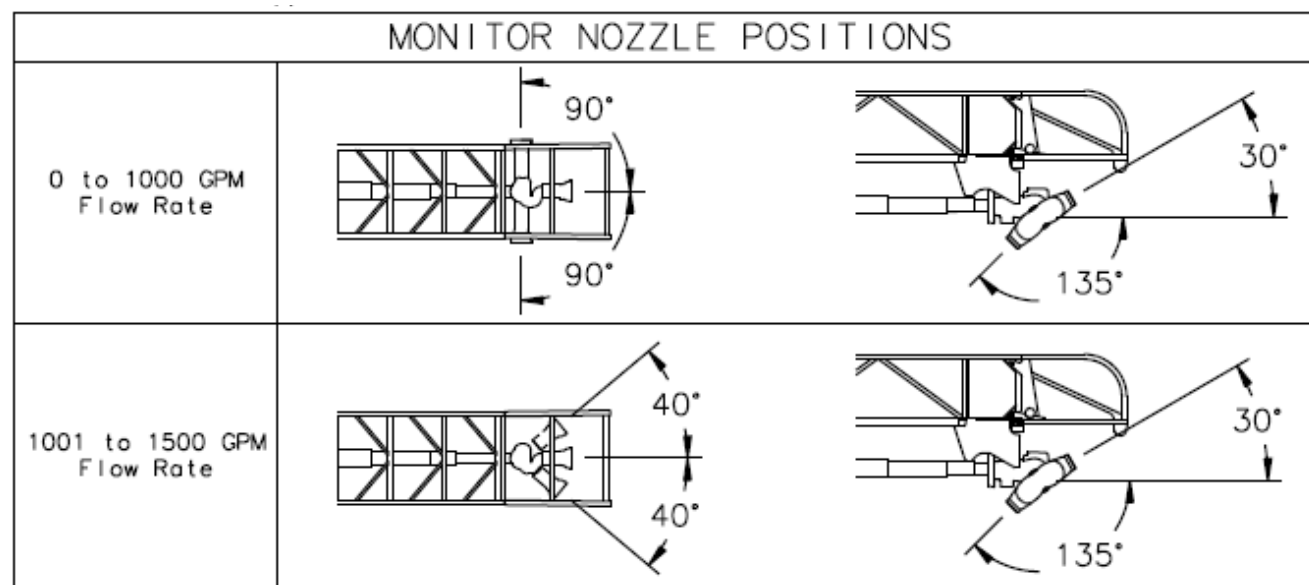
The integral telescopic water system will consist of a 4.50" diameter tube in the base section, a 4.00" diameter tube in the mid-section and a 3.50" diameter tube in the fly section. The telescopic waterway will be constructed of anodized aluminum pipe.



Nozzle Capabilities



Monitor reach is reduced to 40 degrees each side when flowing 1001+ GPM.



Capacities are based on the following conditions:

- Apparatus is set up according to the operator's manual and leveled to within safe operating limits.
- The ladder is fully extended and unsupported, 360° continuous rotation.
- For icing conditions, refer to the operator's manual.

Electrical Distribution Box



Electrical distribution box is underneath the apparatus behind the fuel tank.



Hydraulic Tank

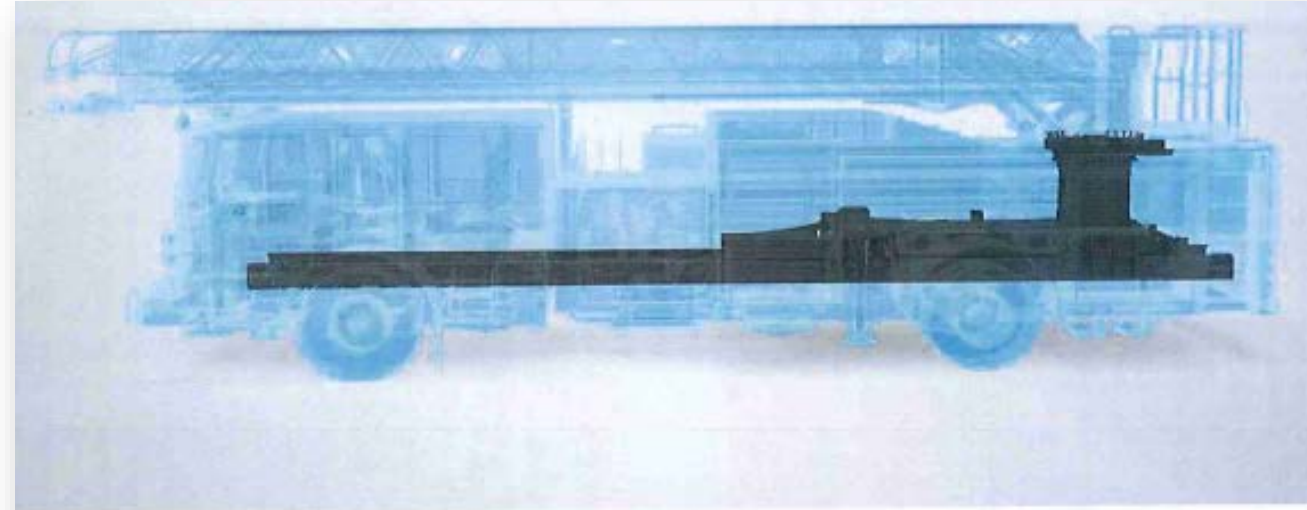
The hydraulic tank is located just above the fuel tank up inside the torque box/pedestal. Notice the interesting shape.



Ascendant Coatings



What about the rest of their major steel components (turntable, ladder, etc.)? Are they not important enough to have this coating?



E-Coat Corrosion Protection

As standard, the torque box, frame rails, and pedestal are e-coated for corrosion protection.

E-COAT CORROSION PROTECTION



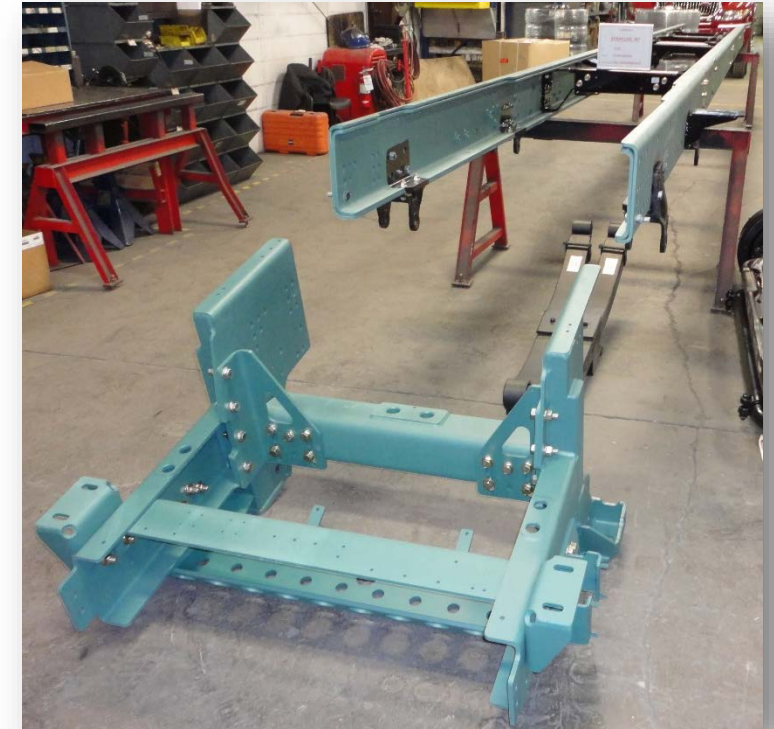
Since this is a dipping process, how are the parts touched up during production or after the unit is in service?

Sutphen Coatings

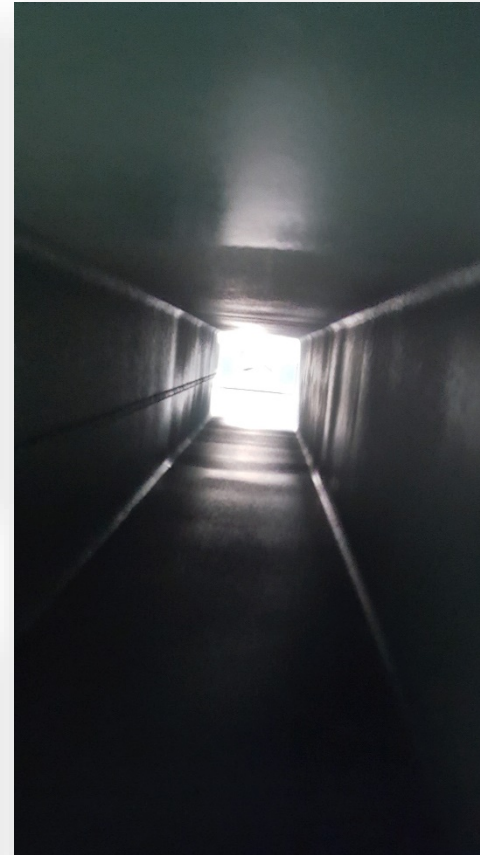


All of the steel components are treated with Cathacoat prior to priming and painting, including:

- Chassis Frame Rails (Including Front Clip Assembly)
- Torque Box
- Outrigger Assemblies
- Turntable
- Ladder Side Plates
- All Steel Ladder Brackets
- Etc.



Sutphen Coatings



Ascendant 107' Single Axle



It sure seems like they made a lot of compromises in creating the Ascendant....

IMPOSSIBLE

IS WHAT FIREFIGHTERS DO EVERY DAY.



You refuse to compromise.
So do we.

ASCENDANT
CLASS OF AERIALS



QUESTIONS OR
COMMENTS???