



Family Owned and Operated Since 1890

# DEALER MEETING COMPETITIVE CHASSIS PRESENTATION

# OVERVIEW

- What Are The Right Questions To Ask?
- What Makes Sutphen Chassis Standout?
- How Does The Competitors Chassis Measures Up To A Sutphen Chassis?
- How Does The Competitors Cab Match Up To A Sutphen Cab?
- How Do Other Components On The Chassis Differ?
- What Are The Key Selling Points On A Sutphen Chassis?

# QUESTIONS TO ASK

- What Chassis Is The Competitor Specing?
  - Does It Compare To What You Are Specing
- What Features Are They Looking For?
- Always Ask For A Spec.
  - If They Do Not Have One Then Offer To Help Them Put One Together
- What Are The Departments Needs?
- Any Past Maintenance Issues On Current Trucks?

# SUTPHEN ADVANTAGE

- Overall Interior Cab Height/Space
- No Standard Options To Drive The Customer Into Something They Don't Want
  - Customer Has The Capability Of Making Every Aspect Of The Cab From The Color They Want To All The Other Options They Want.
- Listening To The Customers Feedback And Implementing It

# CORRESPONDING CHASSIS

- Pierce
  - Arrow XT, Velocity
- Rosenbauer
  - Commander Series
- E-One
  - Cyclone II
- KME
  - Predator
- Spartan
  - Gladiator
- Ferrara
  - Igniter

# PIERCE – ARROW XT



# PIERCE – ARROW XT

- Engine
  - Detroit Diesel DD13, Cummins L9, ISX 12 or X15
- Engine Horsepower
  - 370 - 600 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS, or 4500 EVS
- Alternator
  - 270 - 430 amp
- Front GAWR (maximum)
  - 24,000 lb
- Front Axle Suspension
  - Leaf or TAK-4® Independent Front Suspension
- Cramp Angle (maximum)
  - 45°
- Rear GAWR (maximum)
  - 60,000 lb
- Rear Axle Suspension
  - Leaf, Rubber, or Air; Single or Tandem
- Frame Rail
  - 13-3/8"
- Cab Width
  - 94-3/4"
- Cab Length
  - 57", 67" or 81"
- Cab Roof Style
  - Flat or Raised (10", 16" or 20")
- Seating Capacity
  - Max 8
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Standard
- Frontal Air Bags
  - Standard
- Electrical System
  - Hard Wired or Command Zone™



# PIERCE – VELOCITY





# PIERCE – VELOCITY

- Engine
  - Detroit Diesel DD13, Cummins L9, ISX 12 or X15
- Engine Horsepower
  - 370 - 600 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS, or 4500 EVS
- Alternator
  - 270 - 430 amp
- Front GAWR (maximum)
  - 24,000 lb
- Front Axle Suspension
  - Leaf or TAK-4® Independent Front Suspension
- Cramp Angle (maximum)
  - 45°
- Rear GAWR (maximum)
  - 60,000 lb
- Rear Axle Suspension
  - Leaf, Rubber, Air, **TAK-4®, or TAK-4® T3**; Single or Tandem
- Frame Rail
  - 13-3/8"
- Cab Width
  - **100"**
- Cab Length
  - **60", 70" or 84"**
- Cab Roof Style
  - **Flat or Raised (10", or 20")**
- Seating Capacity
  - **Max 10**
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Standard
- Frontal Air Bags
  - Standard
- Electrical System
  - **Command Zone™**

# ROSENBAUER – COMMANDER SERIES



# ROSENBAUER – COMMANDER SERIES

- Engine
  - Cummins ISL9, ISX12, ISX15
- Engine Horsepower
  - 330-600 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS
- Alternator
  - 330-600 amp
- Front GAWR (maximum)
  - 24,000 lb
- Front Axle Suspension
  - Independent or Leaf Spring Suspension
- Cramp Angle (maximum)
  - 46°
- Rear GAWR (maximum)
  - 63,000 lb
- Rear Axle Suspension
  - Leaf Spring or Air
- Frame Rail
  - 10.19"
- Cab Width
  - 99"
- Cab Length
  - 54" – 70"
- Cab Roof Style
  - Flat or Raised (8", 11", 18", 24")
- Seating Capacity
  - Max 10
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Optional
- Frontal Air Bags
  - Optional
- Electrical System
  - Multiplex or Point-to-Point

\*\*\*Commander Series Offerings Are: R3300, R5400, R6000, R6500, R7000, & R7800. If You See A Series 3000 or 4000 That Is Referring To The Transmission.



## E-ONE – CYCLONE II



CYCLONE IS NO LONGER AVAILABLE

# E-ONE – CYCLONE II

- Engine
  - Cummins ISL9 & ISX12
- Engine Horsepower
  - 330-600 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS
- Alternator
  - up to 430amp (SINGLE)
  - up to 640amp (DUAL)
- Front GAWR (maximum)
  - 22,800 lb
- Front Axle Suspension
  - Taper Leaf Spring Front Suspension or Independent Front Suspension (IFS)
- Cramp Angle (maximum)
  - 45°
- Rear GAWR (maximum)
  - 62,000 lb
- Rear Axle Suspension
  - Multi-leaf rear suspension
- Frame Rail
  - 10-1/4" or 12" or Integral Torque Box
- Cab Width
  - 100"
- Cab Length
  - 44.5", 58", 67.5" or 80"
- Cab Roof Style
  - 12", 16", or 20"
- Seating Capacity
  - Max 10
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Optional
- Frontal Air Bags
  - Optional
- Electrical System
  - Multiplex



# KME - PREDATOR



# KME - PREDATOR

- Engine
  - Cummins ISL9 & ISX12
- Engine Horsepower
  - 300-600 hp
- Transmission
  - Allison 3000 EVS and 4000 EVS
- Alternator
  - 270-430 amp
- Front GAWR (maximum)
  - 23,000 lb
- Front Axle Suspension
  - Independent Suspension
- Cramp Angle (maximum)
  - Unknown
- Rear GAWR (maximum)
  - 60,000 lb
- Rear Axle Suspension
  - Leaf Spring
- Frame Rail
  - 10-1/4"
- Cab Width
  - 96" and 100"
- Cab Length
  - 45", 54", 62.5", 67.5" 74"
- Cab Roof Style
  - Flat, 10", 16" or 22"
- Seating Capacity
  - Max 10
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Optional
- Frontal Air Bags
  - Optional
- Electrical System
  - Point-to-Point & Multiplexing



# SPARTAN - GLADIATOR



# SPARTAN - GLADIATOR

- Engine
  - Cummins ISL9, ISX12, ISX15
- Engine Horsepower
  - 300-600 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS
- Alternator
  - 270-430 amp
- Front GAWR (maximum)
  - 24,000 lb
- Front Axle Suspension
  - Leaf Spring or Independent Suspension
- Cramp Angle (maximum)
  - 53°
- Rear GAWR (maximum)
  - 63,000 lb
- Rear Axle Suspension
  - Leaf, 9-options For Air, Rubber, or Other Leaf Types
- Frame Rail
  - Single to Triple
- Cab Width
  - 99"
- Cab Length
  - 0", 33", 45", 54", 60", 67.5", 80"
- Cab Roof Style
  - Flat, 10", 20" or 24"
- Seating Capacity
  - Max 10
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Optional
- Frontal Air Bags
  - Optional
- Electrical System
  - Point-to-Point and Multiplex

# FERRARA - IGNITER



# FERRARA - IGNITER

- Engine
  - Cummins ISL9, X12,
- Engine Horsepower
  - Up to 515 hp
- Transmission
  - Allison 3000 EVS, 4000 EVS
- Alternator
  - 270 - 430 amp
- Front GAWR (maximum)
  - 24,000 lb
- Front Axle Suspension
  - Independent Front Suspension, Leaf Spring
- Cramp Angle (maximum)
  - Leaf Spring 43°  
Independent 52°
- Rear GAWR (maximum)
  - 63,000 lb
- Rear Axle Suspension
  - Leaf Spring
- Frame Rail
  - 10-1/2"
- Cab Width
  - 100"
- Cab Length
  - 33" - 2 Door, 45", 54", 62", 68", 80"
- Cab Roof Style
  - Flat or Raised (Up to 24")
- Seating Capacity
  - Max 10
- Doors
  - Barrier or Full Height
- Side Roll Protection
  - Optional
- Frontal Air Bags
  - None
- Electrical System
  - Multiplex and Point-to-Point

HOW ELSE DOES THE COMPETITION  
MEASURE UP TO A SUTPHEN CHASSIS?



# CAB STRUCTURE

- Pierce
  - Metal interior skin with aluminum extrusions
- Rosenbauer
  - 3/16" aluminum with extruded aluminum frame
- E-One
  - 3/16" extruded aluminum with integral roll cage. Perimeter skin material is made of 3/16" aluminum-alloy
- KME
  - Unknown
- Spartan
  - Extruded aluminum and welded construction.
- Ferrara
  - 3/16" thick, marine grade aluminum plate side walls, double wall cab face, rear wall, floor, roof, engine tunnel 1/8" inner skin

Sutphen - Constructed with 6061-T6 aluminum extrusions. With 1/8" to 3/16" thick 5052-H32 aluminum panels.



# CAB MATERIAL

- Pierce
  - Vinyl Panels and Painted Metal.
- Rosenbauer
  - Rubber Floor, Metal Trim, Painted Doors, And Vinyl On Walls
- KME
  - Vinyl Panels and Painted Metal.
- Spartan
  - Vinyl Panels and Rubber Floors.
- E-One
  - Zolatone Painted Metal or A Raptor Style Finish, Rubber Floor, and Door Panels Plastic. E-One Uses A Lot Of Plastic And Wood Since They Have There Own Molding Shop On Site.
- Ferrara
  - Rubber Floor, And Cloth Wall Coverings

Sutphen - Painted Walls, Metal Panels, Rubber Floors, Scorpion Finish On Engine Cover and Dash, Wall Coverings Are Cloth.





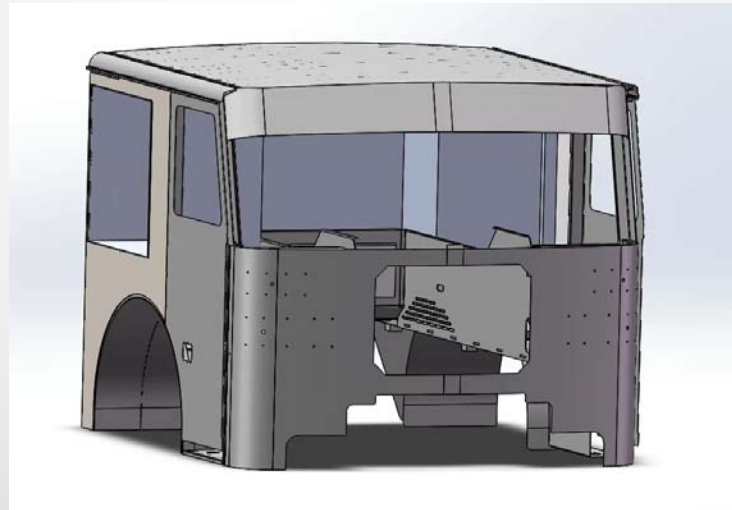
# EXTREME DUTY CAB

- Currently Offering 56", 62", 73", and 90" Cab Lengths
- Seating Capacity Up To 10
- Flat, 10", 15", and 20" Raised Roof Configurations
- New Flat Roof 36-1/4" 2 Door Cab



## 2 DOOR CAB OFFERING

- Transverse Rear Compartment
- Width And Design Still Under Review
- 36-1/4" From Center Of Front Axel To Outer Rear Wall



# WIRING HARNESS

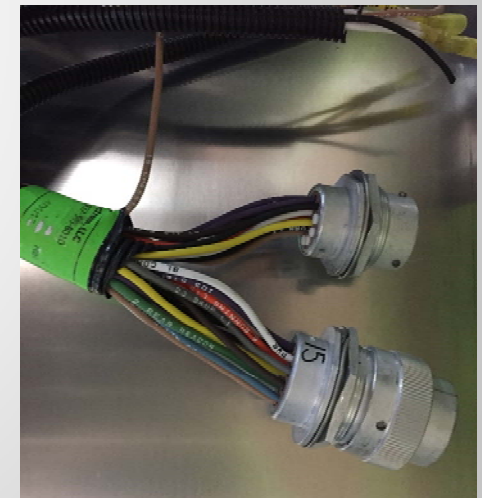
- Pierce
  - Wiring Will Be Run In Loom Where Exposed, And Have Grommets Or Other Edge Protection Where Wires Pass Through Metal.
  - Wiring Will Be Color, Function And Number Coded.
  - Function And Number Codes Will Be Continuously Imprinted On All Wiring Harness Conductors At 2" Intervals.
- All Wiring Installed Between The Cab And Into Doors Will Be Enclosed Within An Expandable Rubber Boot To Protect The Wiring.
- Exterior Exposed Wire Connectors Will Be Positive Locking, And Environmentally Sealed To Withstand Elements Such As Temperature Extremes, Moisture And Automotive Fluids.

# WIRING HARNESS CONTINUED

- Rosenbauer
  - Loom Or Conduit Where Exposed To The Elements. Wiring Shall Be Color Coded and Labeled
- Spartan
  - Wiring Loom Standard
- Ferrara
  - Split Loom
- KME
  - Color Coded And Include Function Codes Every Three 3" On Both Sides.
  - Wiring Harnesses Will Be Routed In Protective, Heat Resistant Loom, Securely And Neatly Installed
- E-One
  - Standard V-Mux Wiring

# SUTPHEN WIRING HARNESS

- Standard Point-To-Point Electrical System
- Color Coded Wiring Labeled Every 3" With Function
- Heat-Resistant Loom And Terminated With Deutsch Connectors



# WINDSHIELD DESIGN

- Pierce
  - 2 Piece – Arrow XT
  - 1 Piece - Velocity
- Rosenbauer
  - 1 Piece
- E-One
  - 2 Piece
- KME
  - 2 Piece
- Spartan
  - 2 Piece
- Ferrara
  - 2 Piece

Sutphen – 2 Piece

## OTHER KEY SELLING POINTS



# SUTPHEN BUMPERS

- 1/4" Thick Steel Reinforcement Behind A 10 Gauge Stainless Steel
- 1/4" Thick Painted Steel Outer Skin
- 3/8" Thick Steel Bumper Extensions
- Extensions From 6" to 30" And To Accommodate Numerous Storage Options



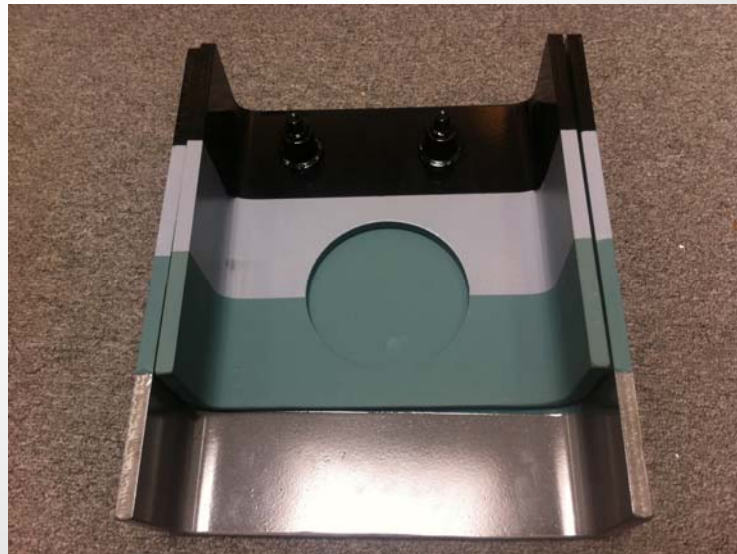
# FRAME RAIL COATING

- Pierce
  - Electrophoretic Coating (E-coat)
- Rosenbauer
  - Hot Dip Galvanized or Powder Coated
- E-One
  - Hot Dip Galvanized or Powder Coated – Old Way Was To Sandblast And Paint
- KME
  - Gloss Black Paint
- Spartan
  - Powder Coat
- Ferrara
  - Powder Coated High Gloss Black

Sutphen - Cathacoat 302H

# CATHACOAT® 302HB

- High performance reinforced inorganic zinc-rich primer
- Provides exceptional corrosion resistance & cathodic protection in severe industrial environments



# AIR CONDITIONER LOCATION

- Pierce
  - In Roof
- Rosenbauer
  - In Roof
- E-One
  - In Roof
- KME
  - In Roof
- Spartan
  - In Roof , Engine Cover, or Under Dash
- Ferrara
  - In Roof

Sutphen – Engine Cover

# INTERIOR FLOOR DESIGN

- Pierce
  - Raised (5.75") - Both
- Rosenbauer
  - Flat
- E-One
  - Flat – Pumpers
  - Raised - Aerials
- KME
  - Flat
- Spartan
  - Raised (5")
- Ferrara
  - Flat

Sutphen – Flat

# CAB INTERIOR HEIGHT (FLAT ROOF)

- Pierce
  - 53.5" center – Arrow XT
  - 57" center - Velocity
- Rosenbauer
  - 55.5"
- E-One
  - 55.5" center
- KME
  - 54"
- Spartan
  - 55"
- Ferrara
  - 57.5"

Sutphen - 60"

# FINAL WRAP UP & QUESTIONS?



# SELLING AGAINST THE COMPETITION

- Flat Roof Interior Height Is Tallest In Industry
- Sutphen Is A Sole Source Manufacture
- We Offer Air Ride Suspension As A Standard On Our Aerial Chassis
- Compression Fittings Standard On Chassis Air Lines
- Largest Family Owned Fire Truck Manufacture Since 1890



QUESTIONS?

# FUTURE CHASSIS UPDATES

- Placing Venting On Top Of Engine Hood Cover To Allow Electrical System To Ventilate Properly.
- Compression Fittings Standard On All Major Chassis Components
- Tilt Sub-frame Brace Being Installed
- Fuel Cap Upgrade From Current Design (1/4 turn)
- Moving Defrosting Ductwork Over Windshield To Not Block Visibility. (relocating upward approximately 1.5")
- Going To A Standard Seat Offering For Bostrom With The 550
  - The Seat Will Have Capability of Dual Retractor. Driver & Officer
- New Exhaust Bellows on Exhaust System