

SUTPHEN EXTREME DUTY CHASSIS

H.O.T.T. Class by Sutphen Chassis Team

Sutphen Built Cab

- 6061-T6 aluminum extrusion and 1/8"-3/16" 5052-H32 aluminum panels.
- Contoured cab front and roof for greater strength and rigidity.
- Back wall 3/16" aluminum pumper aerial same cutout.
- Exterior cab compartments integrated in cab when built.
- Side exterior grab handles nut plate fasteners for ease of install and removal.
- The under-cab steel formed substructure. The cab is mounted on isolators and the separate heavy-duty pivoting substructure for improved ride, stronger cab, and reduced sub-frame stress.

Heavy Duty Exterior

- Bumpers are constructed with a 1/4" thick steel reinforcement behind a 10 gauge stainless steel, 1/4" thick outer skin. Also offer 1/4" painted steel face over 1/4" reinforcement.
- 16 gauge 304 Stainless Steel Polished Grill
- 16 gauge 304 Stainless Steel Polished Headlight Housing
- Cab fenders are polished stainless steel, and mounted spaced away from the cab side to avoid collection of dirt, debris, and moisture build-up.
- Single piece, forged Stainless Steel grab handles
- Large, full width egress cab steps.
- Air operated cab tilt safety latch.

Heavy Duty Interior

- Stainless Steel Door panels.
- Raptor option Stainless Steel Door panels upper panel only.
- Ample room for driver, officer, and crew with custom seating options.
- Seat mounting allows for maximum visibility through the windshield.
- Easy access to service related items (ie: window regulators, dedicated radio power, 12-volt auxiliary fuses, circuit breaker panel, relays)
- Durable, urethane coated dash, switch console, and engine hood.
- Extreme duty A/C system mounted low on the engine hood, and can withstand mounting of equipment such as hand lights, etc. The A/C and heat system features multiple vents, heat and A/C to feet, and a defroster that covers the entire width of the cab.
- A/C to face upgraded vent.
- All gauges are individual, not cluster, for ease of repair if needed.
- Testing completed offering frontal and side curtain air bags.
- New style bolt in side windows

304 Stainless Steel Fuel Tank Optional (Not For Aerial Fuel Beam)

- FMCSA certified, coated with anti-corrosion solution.
- Fuel tanks all tanks with top coat finish.
- Victaulic fuel fill pumpers.

SUTPHEN EXTREME DUTY CHASSIS

H.O.T.T. Class by Sutphen Chassis Team

Electrical System

- Sutphen utilizes a point-to-point electrical system with color coded wiring labeled with function every 3".
- We use heat resistant loom and electrical connections terminate with Deutsch connections. We also use GXL high heat rated wiring.
- Batteries, mounted in a vented 304 stainless steel box, removable aluminum protective cover, on a Dry Deck mounting bed.
- Auxiliary Fuse Block, mounted under rear facing Officer seat box, with 6 battery outputs and 6 ignition outputs, 10 amp each / 50 amp maximum.
- Kussmaul/IOTA Battery Charger/Conditioner/Pump, mounted under rear facing Driver seat box, and Shoreline/Auto Eject behind Driver.
- Quick connect power wires electrical control panel officers side. (Breaker Panel)
- Water tank level gauge all trucks. (PS TANK)
- Bumper lights and warning lights installed using Deutsch connectors.
- Lower console 60 amp power ground option.
- Under officer seat 100 amp power ground option.

Extreme Duty Frame Rail System

- Option for single, double, and Domex 110,000 psi frame rails.
- All chassis frame rails are double thick at pump module and suspension mounting locations.
- Frame rails, cross members, and suspension hangers are Huck Bolted for strength, and all serviceable items are fastened with Grade 8 bolts for ease of repair or replacement.
- New updated cross members.
- Lowered front suspension all tandem axle aerals.
- Frame rails are treated with Cathacote 302H zinc rich primer, and high quality chemical and solvent resistant top coat, for superior corrosion protection.
- Standard Raptor coating all frames pump install area.

Air Brake System

- Sutphen utilizes compression fittings instead of push to lock style.
- Brake and electrical harnesses are coded, covered in high temperature loom, and secured within the frame rail, protecting them from debris and damage.
- Chassis has air leak sign offs through out the build. This starts in brakes with the brake system being connected to a test device with park brake and brake pedal inputs supplying air to all lines, the air test is performed again when final assembly is completed with all air lines connected and truck is operational. When doing these tests all fittings are sprayed with a water soap mix. The final air test is done after test drive and before delivery from chassis. This is an overnight test airing the truck up until air dryer purges marling needles on gauges and checking gauges in morning. Limit of 10 lbs air loss overnight.

SUTPHEN EXTREME DUTY CHASSIS

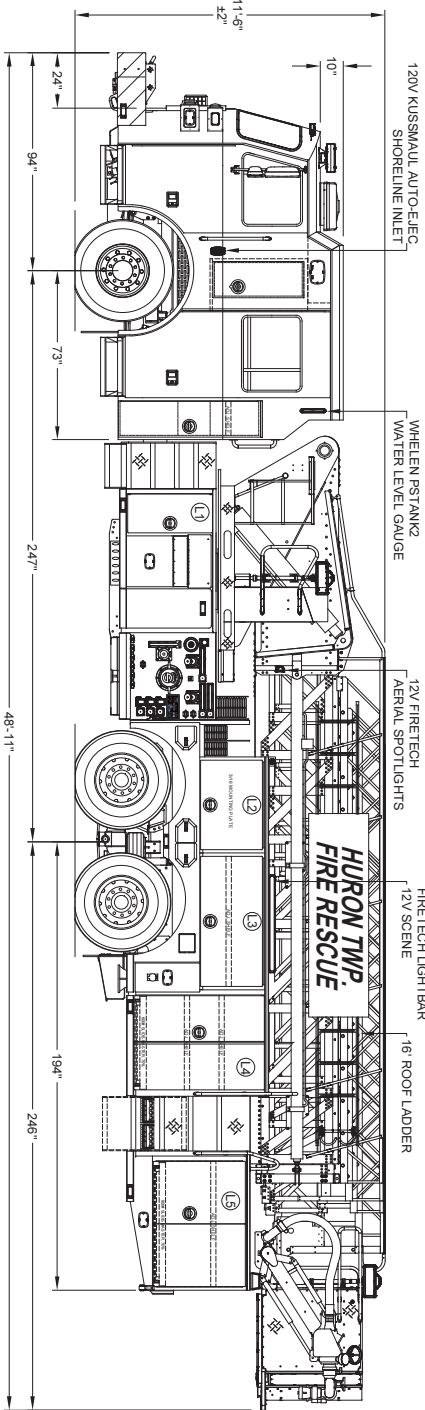
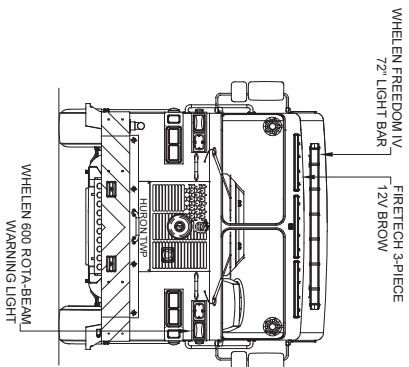
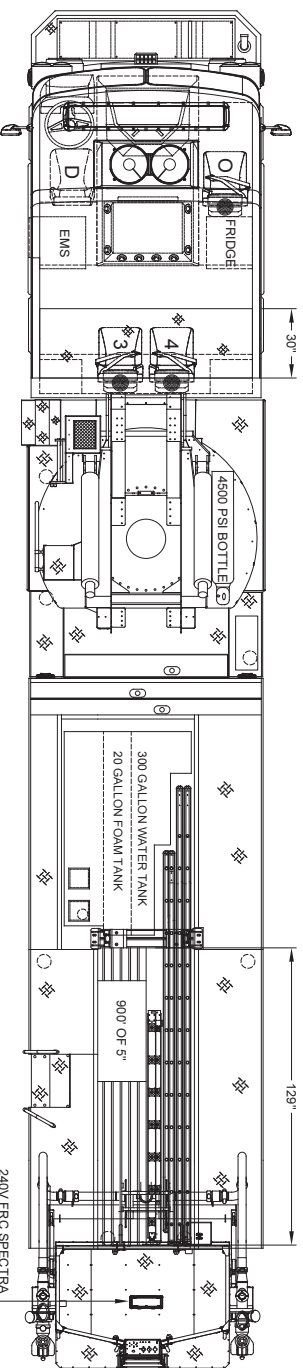
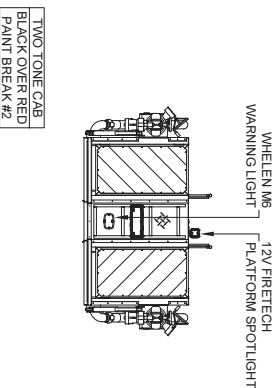
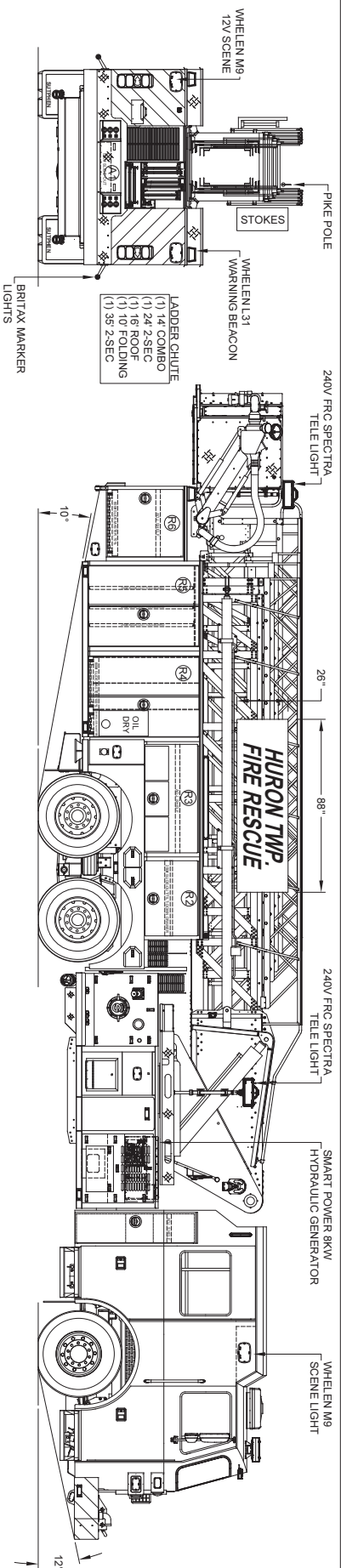
H.O.T.T. Class by Sutphen Chassis Team

Engine Air Cleaner System/Exhaust, A/C, Heater

- Air is pulled over the cooling package to provide direct flow
- Intake 48" above ground level to allow fording deep water
- System exceeds ISO 5011 standards for cleanliness and dirt holding capacity
- Fully wrapped stainless steel exhaust for reduced heat reduction (Insultech insulation)
- All hoses on engine Oat Master (437 degree F) To address Silicone hose. smell and quality issues
- Heater lines in cab EPDM hose (300 degree F) To address residual anti freeze smell in cab
- Clamp change from Breeze to OETIKER clamp and or ASFAL constant tension
- Steel A/C manifolds replaced with soft line kits
- Stainless steel surge tang with cradle mount X12 and L9, X15 tab mount

Front Suspension

- 56" long 4" wide leaf parabolic (Progressive Loading) spring suspension
- Steer Tek auxiliary spring system for superior ride
- 19K three leaf suspension
- 20K,23K and 24K four leaf suspension
- Steer assist with 20K through 24K
- 24K axle disc brake only
- Shocks matched to suspension kit
- Huck bolt installation
- Cast steel spring hangers



DOOR OPENINGS			
COMPT	HEIGHT	WIDTH	DEPTH
L1	34 1/16	13 7/16	38 1/2
L2	23	33 1/4	27 1/2
L3	23	50 1/4	27 1/2
L4	51 3/4	37 1/2	26 1/2
L5	35 3/8	30 3/4	28 1/2

COMPARTMENT DIMENSIONS			
COMPT	HEIGHT	WIDTH	DEPTH
R1	34 1/16	33 7/16	38 1/2
R2	23	33 1/4	27 1/2
R3	23	50 1/4	27 1/2
R4	51 3/4	37 1/2	26 1/2
R5	35 3/8	30 3/4	28 1/2

DOOR OPENINGS			
COMPT	HEIGHT	WIDTH	DEPTH
A1	9 1/8	24 1/2	88

TOTAL COMPARTMENT VOLUME - 283.49 CU. FT.

CUSTOMER APPROVAL

NAME:			
TITLE:			
DATE:			
REV	DESCRIPTION	DATE	BY
A	"REV A" SHOP ORDER	09/11/23	TF
THIS PRINT IS PROVIDED ON A RESTRICED BASIS AND IS NOT TO BE USED IN ANY WAY OR TRANSFERRED TO THE INTEREST OF SUTPHEN CORPORATION.			
DRAWN BY: T. FAROLIM		DATE: 12/13/2022	
CHECKED BY: WES / A. KELLY		DATE: 09/11/23	
DUBIN		DUBIN	
SWG NO.: 7722		HURON TOWNSHIP FIRE DEPARTMENT NEW BOSTON, MI SPH100 AERIAL PLATFORM	

