



## Hale Trailer Brake & Wheel

A013942-A013943

VINS: 008300-008301



A General		SPECIFICATIONS
1	Trailer Type	Aluminum
2	Code	DOT-406
3	Overall Length in Feet	45
4	Shape	<i>Double Taper Elliptical with Slope to Center</i>
5	Operating Pressure	3.3 PSI with 5 PSI Test Pressure
6	Max. Product Density	7.5 lbs./ U.S. Gallon
7	Max. Loading Temp.	150° F max. Operating Temperature
8	Product(s)	Refined Fuels, Gasoline, Diesel, and Etc.
9	Warranty	Standard Three (3) Year Limited Warranty
10	Fifth Wheel Height	Standard 49"
11	Additional Regulation	None-Optional
12	Wheelbase	Engineering to Design to Optimize Payload
13	Road Design Application	Designed for on-road use only
B Barrel		
1	Compartment(s)	<i>Four (4) compartments</i> <b>3500//2300//1100//2600</b>
		<b>Note: MAC LTT recommends at least one set of double bulkheads to avoid mixture of products</b>
2	Capacity	<b>9,500 Gallons +3% Overage in Each Compartment with 60 Gallon Minimum Overage.</b>
3	Baffles	0.25" Load Bearing & 0.19" Non-Load Bearing 5454 0T Aluminum with large center hole, 3" holes at 9, 12, & 3 o'clock positions and Bottom Drain Tunnel
4	Shell	Two Section Aluminum 5454-H32 Barrel 0.205" Bottom, 0.179" Top and Sides
4a	Shell Finish	Mechanical Buffed Sides with Enhanced Finished Top and Bottom
5	End Heads	0.249" Nominal 5454 0 Temper AL Flanged & Dished Heads
5a	Head Finish	Polished Finish (Standard)
6	Bulkheads	<b>Double 0.19" Bulkheads Nominal 5454 AL Flanged &amp; Dished Heads-Mill Finish</b>
7	Manway(s)	One (1) 16" Diameter with 10" offset fill manhole per compartment.
8	Weld Finish	W-0 Inside and Outside - Free of Weld Spatter and Weld Smoke
11	Insulation	None-Optional
12	Jacketing	None-Optional
13	Underlayment	N/A
14	Thermometer	None-Optional
C Structure		
1	Reinforcing Rings	None - Smooth Exterior with Internal Baffles
2	Frame	Extruded Aluminum Full Length Frame Design
3	Barrel Supports	Aluminum Outriggers and Crossmembers at Load Bearing Areas
4	Overturn Protection	DOT-406 Aluminum "V" Extrusion on Top Both Curbside and Roadside. Curbside Rail Doubles for Vapor. Dam Plates at Each End with 1/2" Coupler and Plug
5	Overturn Drain(s)	3" Walkway drain through tank at Rear

D Running Gear		
1	<b>Suspension</b>	Hendrickson Intraxx AANT23K, 23,000 lb.
1a	<b>Axle Spacing (inches)</b>	49"
1b	<b>ZMD Ride Bags</b>	None-Optional
2	<b>Axles</b>	71 1/2" Track with 5.75" diameter; HP Spindles with Same Inner and Outer Bearings.
3	<b>Number of Axles</b>	Two (2)
4	<b>Lift Axle(s)</b>	<b>Install Auto Sensing UBL Lift Kit on Front Axle with Toggle Override in Cabinet</b>
4a	<b>Ride Height Control</b>	Standard Hendrickson Height Control Valve
5	<b>Hub(s)</b>	<b>Hendrickson MAXX22T Disc Brakes include DuraLite Hubs</b>
6	<b>Drum(s)</b>	N/A
7	<b>Dump Valve</b>	Push/Pull Valve with Auto Reset mounted in Control Cabinet
8	<b>Brakes/Brake Chambers</b>	<b>Hendrickson MAXX22T Disc Brakes with Wabco 18/24 Brake Chambers</b>
9	<b>Dust Shields</b>	<b>Sealed Dust Shield (Standard Disc Brakes)</b>
10	<b>Slack Adjusters</b>	<b>N/A - Integral with Disc Brake Option</b>
11	<b>Warranty</b>	<b>Hendrickson Extended Life System "HXL7" with Federal Mogul Hub Seals</b>
12	<b>Gladhands</b>	Phillips or Equivalent
13	<b>ABS</b>	Wabco 4S/2M System Wired to Blue Wire with Rear Malfunction Warning Light
14	<b>Roll Stability System</b>	ABS with Roll Stability System
14a	<b>Diagnostic Cable</b>	None-Optional
15	<b>Air System</b>	Aluminum Air Tanks
16	<b>Tank Drain/Dryer</b>	Petcock Valve at bottom of each Tank
17	<b>Suspension Frame</b>	Aluminum
18	<b>DOT PHMSA Bumper</b>	One (1) Aluminum rectangular tube, per PHMSA specifications
19	<b>Bumper Overlay</b>	Full width Aluminum Buffed Cosmetic Bumper Overlay.
20	<b>DOT NHTSA Bumper</b>	None when DOT 12" Wheels Back Exemption Applies
21	<b>Rear Closeout</b>	Rear Tank Frame Closeout Panel
E Tires/Wheels		
1	<b>Wheels</b>	Accuride Accu-Lite with Extra Polish
2	<b>Tires</b>	Goodyear Marathon RSS 11R22.5 16 Ply
3	<b>Number of Tires</b>	Eight (8)
4	<b>Tire Inflation System</b>	None-Optional
5	<b>Hubodometer</b>	None-Optional
6	<b>Load Gauge</b>	None-Optional
F Fenders		
1	<b>Fenders-Front</b>	Roadside Aluminum Contour Fender. Hose Tray on Curbside Doubles as Fender
1a	<b>Closure Plate</b>	None-Optional
2	<b>Fenders-Rear</b>	Roadside Aluminum Contour Fender. Hose Tray on Curbside Doubles as Fender.
3	<b>Mudflaps</b>	MAC LTT Mudflaps on Rear of Fenders and Front Curbside of Rear Tires
3a	<b>Anti-Sail</b>	Standard MAC LTT Fabricated Anti-Sails installed where necessary
4	<b>Spray Guard</b>	None-Optional
G Landing Gear		
1	<b>Landing Gear</b>	Jost AX150 Alumilight Landing Gear
2	<b>Crank Location</b>	Roadside
H Upper Fifth Wheel		
1	<b>King Pin Plate</b>	5/16" Upper Plate with Hubbed Kingpin.
2	<b>Pick-Up-Plate</b>	Aluminum Pick-Up-Plate Installed if necessary
I Ladder/Platform/Walkway		
1	<b>Ladder(s)</b>	Front Bolt-On Aluminum at Center of Head. Rails to have Rolled Radius at Top of Ladder and Top Deck plate Step
2	<b>Safety Hand Rails</b>	None-Optional
3	<b>Top Walkway</b>	Non-Skid Tape Between Top Vapor Rails
4	<b>Fall Protection</b>	None-Optional
J Cabinet(s) & Components		
1	<b>Tool Cabinet(s)</b>	One (1) Aluminum Cabinet, 48" Wide x 30" High x 27" Deep with Two Aluminum Side Hinged Doors. Mounted curbside forward of suspension. <b>*Install MAC preferred Shelving and Partitions for Petroleum Units</b>
2	<b>EVO Cabinet(s)</b>	One (1) 30" High Single Door Box with Overfill System and Emergency Valve Controls mounted at Front flush with top of Curbside Equipment Cabinet.
K Hose Carrier(s)		
1	<b>Hose Carrier(s)</b>	One (1) 3.5" x 22"W x Full Length Aluminum Extruded Tray functions as Curbside fenders. Includes drain at rear and tarp straps to retain hoses.
2	<b>Trough Cover(s)</b>	None-Optional
3	<b>Gauge Stick</b>	16 Foot Gauge Stick and Holder on Curbside at Rear with Tension Pin at Front

L Venting & Vapor Recovery System		
1	Relief Vent(s)	One (1) 10" Pressure/Vacuum Relief Valve with Set Pressure at 3.63 PSI Installed in Each Manhole Cover. One (1) BETTS #3686-AL Vent in the Vapor Line Under the Belly of the Tank.
3	Discharge Vent	Inward opening Sequential Vent with Viton seals in each manhole cover.
4	Recovery Piping	Vents connected to nipples in curbside flashing rail with 3½" I.D. hose. Internal Vapor Pipe Through Tank with connections at the following locations: (1) 4" outlet Curbside 15" to rear of last discharge valves (1) 4" outlet to extreme rear facing Curbside sloped down 15 degree
5	Adapter & Cap	Vapor outlet(s) equipped with 4" flanged popped vapor adapter & 4" orange cap.
6	Vapor Drain	None-Optional
N Valving/Piping/Hose		
1	Outlet(s)	One (1) 4" Aluminum Drain Pocket at Bottom of each compartment
2	Splash Deflector	Bolt-on Splash Deflector above each Emergency Valve
3	Extra Drain Troughs	None-Optional
4	Equipment Warranty	<b>Civacon System V (5-year Warranty Package)</b>
5	Discharge Valve(s)	Elbow or Straight Air Operated Emergency Valves with Flanged Outlet and AL Body
6	Dicharge Controls	Installed in EVO Cabinet with Air Tank Pressure Gauge
7	Emergency Valve Closure	Emergency Closure located at Front Head Roadside
8	Piping	4" Sch 10 Aluminum discharge piping with formed long radius sweeps from Emergency Valves to Curbside of tank, per API standards.
9	Manifold	None-Optional
10	Front Pump-off Line	None-Optional
11	Outlet Valve(s)	API Valves with Aluminum Handle and Viton seals per compartment.
12	Sight Glass	<b>Jikoh JDG-105 "Ethanol Resistant" Sight Glass behind each API Valve</b>
13	Adapter(s)/Cap(s)	4" Aluminum Male Gravity Drop Adapter with 4" Aluminum Dust Cap
14	Secondary Discharge(s)	None-Optional
15	Security Seal Provisions	None-Optional
16	Product Indicators	8-sided commodity tags on bracket over each API valve with Compartment Capacity.
17	Flanged Gaskets	<b>Viton or Equivalent Gaskets used on all Flanged Connections</b>
18	Grooved Gaskets	<b>Customer requests no Grooved Connections</b>
21	Brake Interlock Valve(s)	One (1) Aluminum Pipe Style Interlock Bar Installed Over Bottom Loading Adapters and Extended to Vapor Outlet(s) at Discharge with (1) Brake Interlock Valve. One (1) Brake Interlock Valve Mounted on Each Vapor Outlet not within API Bar.
O Pump		
1	Pump	None-Optional
2	Pump Piping	None-Optional
3	Hydraulic Lines	None-Optional
4	Flow Control	None-Optional
5	Platform	None-Optional
P Capacity Controls		
1	Overfill System	Overfill System with a Top Probe in each manhole
2	Sockets	Dual Optic and Thermistor sockets with vinyl caps in Curbside Control Cabinet
3	Top Sensor Settings	Top sensors set to provide a 60 gallon minimum vapor space in each compartment.
4	Bottom Retain	<b>Bottom Sensor install at bottom of each Compartment and Wired to Monitor</b>
5	Overfill Operation	Pressure switch to allow permit when all vapor vents are open
6	Identification Module	Installed in Dual Socket Assembly
7	Static Studs	Two (2) Brass Studs on 1-3/16" centers installed at Landing Gear on Curbside
8	Ground Bolt/Ball	Ground Wire Installed in Each Socket Assembly

Q Wiring		
1	<b>Nose Box</b>	Nose Box with J560 7-Way Plug and Circuit Breakers Located Low Roadside at Front
	<b>Intellistop Module</b>	None-Optional
2	<b>Light System</b>	Truck-Lite LED Junction Box Lighting System with Front Markers, Combination Side Center Turn/Marker Lights, and Three (3) Upper Clearance
2a	<b>End Dam Turn Lights</b>	None-Optional
3	<b>Lamp Mounting</b>	Grommet Mounted
4	<b>Light Boxes</b>	Two (2) Aluminum Light Boxes on the Rear of the Trailer with Two (2) Red Stop/Marker Lamps and One (1) Amber Turn with Rear Side Marker Lights.
5	<b>Wide-Turn Light(s)</b>	None-Optional
6	<b>Work Light(s)</b>	Two (2) Grote LED work lamps, Mounted at Curbside Discharge Area with switch in Cabinet. MAC Extreme LED Lighting Assembly to Illuminate Discharge Valves
6a	<b>Work Light(s) Operator</b>	All work lights operated by switch in EVO Cabinet
7	<b>Cabinet Light(s)</b>	Install One (1) LED Strip Light in each Cabinet
8	<b>Backup Lights</b>	None-Optional
9	<b>Backup Alarm</b>	None-Optional
10	<b>Extra Light(s)</b>	None-Optional
11	<b>Closeout Light Panels</b>	None-Optional
R T.A.L.K- Total Area Lighting Kit		
1	<b>T.A.L.K- SAFETY ARMS</b>	No
2	<b>T.A.L.K- INTERLOCK BAR</b>	Yes
3	<b>T.A.L.K- LIGHTED HOSE GUARD</b>	No
4	<b>T.A.L.K- LIGHTED REAR HEAD</b>	No
5	<b>T.A.L.K- LIGHTED LADDER</b>	No
6	<b>T.A.L.K- Complete System</b>	No
S Paint/Decals		
1	<b>Corrosion Resistance</b>	Electrolysis barrier between all dissimilar metals.
2	<b>Conspicuity</b>	DOT 3M Tape per N.H.T.S.A. Requirements.
3	<b>Decals</b>	Standard Safety/DOT-406 Warning and Safety Decals
4	<b>Customer Decals</b>	None-Optional
5	<b>Emergency Drain Decals</b>	Four (4) 3" diameter round DOT decals, (1) curbside and (1) roadside on horizontal centerline on each end head.
6	<b>MAC Logo</b>	Standard Black MAC Logo Placards on Vapor Rails and Rear Bumper
7	<b>Pin Striping</b>	Black or Selected from Color Options
T Other/Options		
1	<b>Document Holder</b>	Document Holder installed on Roadside, near landing gear frame.
2	<b>Static Cable</b>	1/8" Stainless Steel Static Cables, Double Looped, One (1) Each Compartment.
3	<b>Placards</b>	<b>Four (4) Aluminum Flip Placards (1203, 1987, 3475, 1863,1993) One (1) per side</b>
4	<b>Safety Cone/Bucket Holder</b>	Dual Safety Cone and Bucket Holder mounted near Discharge Area
5	<b>Fire Extinguisher</b>	Jonesco Cabinet with 20 lb. Fire Extinguisher mounted at Roadside
12	<b>Calibration</b>	Theoretical Calibration Chart - 1/4" Increments
14	<b>Bicycle Guard</b>	None-Optional
17	<b>Standard Inspections</b>	Initial Annual DOT Inspection, EPA Method 27, External Visual, Internal Visual, Pressure, and Leakage Tests.
18	<b>Additional Inspections</b>	None-Optional
20	<b>Backup Camera</b>	None-Optional
21	<b>Approvals</b>	3D Model and Design Review available upon Customer Request

#### Additional Options / Requests / Notes

#### DISCLAIMER

Specifications are believed to be correct, but may contain errors and/or omissions. Photographs are the representative of the subject equipment but may not be identical. Equipment availability, prices and specifications are subject to change without notice.