



## Hale Trailer Brake & Wheel A012359-A012363

VINS: 215452-215456



ITEM	DESCRIPTION
<b>TYPE</b>	LOG TRAILER, DROP
<b>DIMENSIONS</b>	
<b>LENGTH</b>	48'-0" overall.
<b>WIDTH</b>	102".
<b>HEIGHT</b>	Nominal, 13'-6" high, top of frames approximately 61" high at front and 49" at rear. (Canada & USA application)
<b>DROP HEIGHT</b>	10" high at 19'-0" from front. (ref: #212677)
<b>COUPLING</b>	
<b>COUPLER PLATE</b>	3/8", 100 000 psi. steel, plug welded reinforced structure.
<b>KING PIN LOCATION</b>	36" from front.
<b>KING PIN</b>	Bolted, 2" diameter, Holland, KP-0882.
<b>COUPLER HEIGHT</b>	50"
<b>STRUCTURE</b>	Frame with "CAMBER".
<b>FLANGES</b>	3/8" x 6", 100 000 psi steel.
<b>WEB</b>	1/4" plate full length, 80 000 psi steel, with holes, parachute shaped, to lighten trailer.
<b>FRAME BRACING</b>	Flat bar 4" x 1/2", 100 000 psi steel, installed underneath the bottom flanges only, at stiffeners area for the loader.
<b>GOOSENECK</b>	11" high, with integrated nose ramp and 48" straight behind king pin.
<b>CROSSMEMBERS</b>	I beams, 4" @ 3.64 lbs/ft, 80 000 psi steel, between main beams.
<b>FLOOR</b>	Checker plate 1/8" between main beams, full length, (no wood flooring at all). **With hole for loader and cover with a bolted floor section** **NO FLOORING ON TOP OF FLANGES AT BOLTED SECTION**
<b>FLOOR FASTENING</b>	Fully welded on length, and at joints.
<b>CORNERS</b>	Square.
<b>FENDERS</b>	Checker plate 1/8", above truck wheels, sloping.
<b>BRACING FOR LOADER</b>	Stiffeners at 6" c/c on the outside of frames in the web. **loader to be installed at center: front and rear crapple holders at 23'-0" from center of the loader area**
<b>ENDS</b>	
<b>FRONT RAIL</b>	3/16" thick formed plate, 80 000 psi steel.
<b>BUMPER</b>	Forestry type, tubing with integrated push & pull plates installed on bumper uprights.
<b>BUMPER</b>	Round tube 6 5/8" x 56". Start tube 6" from rear, exceeds 14".
<b>HEADBOARD</b>	96" high with fabricated beams and square tubings 1 1/2". Ladder road side 4" between the tubes, (5.5" c/c) for smaller logs. Boxes included. *Galvanized*
<b>POCKETS</b>	Front headboard boxes modified (tenon + mortise) in order to clear the front rail by 6". (engineering)
<b>LOGGING</b>	
<b>BUNKS</b>	5 lengths of 8', 4 of 12', 3 of 16' or full length logs. 5 fixed sets of bunks with fabricated boxes. Located: 73 1/2", 57", 53", 56", 70", 56", 53", 59" et 70 1/4"
<b>BUNKS</b>	First 2 at front, 4 1/2" x 7" high, (flanges plate 1/4" 100 000 psi



ITEM	DESCRIPTION
<b>BUNKS</b>	steel and webs one each side 3/16" 80 000 psi steel), double post boxes on first bunk.
<b>BUNKS</b>	Central section, 4 1/2" x 5" high, (flanges plate 1/4" 100 000 psi steel and webs one each side 3/16" 80 000 psi steel).
<b>BUNK ANGLES</b>	Rear, 10 1/2" x 9 3/4" high, (formed 3/16" "V" plate with 1/4" top plate, 80 000 psi steel), with double boxes.
<b>STAKES</b>	Steel ridge 1/2" x 1 1/2" installed on last bunk to hold tree length lumber.
<b>GLAD HANDS PROTECTOR RAISERS BUNKS</b>	Qty: 20, ultra light, galvanised (G164), botton 4" x 4", curved, 80 000 & 100 000 psi steel.
<b>RAISER</b>	3/8" thick plate, welded at front rail. One, aluminum extrusion 3" x 2" for a height same as the drop.
<b>RAISER</b>	Qty: 2 Set of double post box. Located: bunk #4 and bunk #7
<b>RAISER</b>	Qty: 10, additionnal, Aluminum Extrusion, *** 3" x 2" x 4" high *** Located on each bunk.
<b>ELECTRICAL</b>	
<b>FRONT CONNECTOR</b>	7 way (SAE J560), Phillips brand.
<b>FRONT ADD. CONNECTOR</b>	7 way (ISO 3731), for auxiliary functions only.
<b>ELECTRICAL SYSTEM MAIN SYSTEM</b>	Shock proof lights, polycarbonate lenses, in compliance with CMVSS 108. Grote Ultra Blue LED, sealed beams, tail lights with male pins #53252 (10 diodes), markers lights Micronova #47973, identification lights #47122 (2 1/2" dia.), licence light #60280-M).
<b>TURN SIGNAL</b>	Sealed beams LED, one lamp including side marker and flasher, each side at middle point, amber.
<b>BACK UP LIGHT(S)</b>	LED spot light in a vinyl angled grommet. Qty: 2
<b>TAIL LIGHTS</b>	Sealed beams (Grote DEL #53252, 10 diodes) red. Qty: 1 additionnal each side. From outside, tail lights and flasher, brake with parking, brake with parking.
<b>BACK UP LIGHTS</b>	Qty: (2), tractor type sealed LED beam lights (Grote #64G51, TRILLANT), to light up toward the rear. Must be connected with rear back up lights.
<b>TAIL LIGHTS</b>	Located: under 4th bunk from front. Qty: (4) extra sealed lamps L.E.D. (red), rear lights with *** 10 diodes *** (Grote #53252-3). Located: On each side between bumper uprights on cross bar. Total: 10 tail lights (3 each side and 4 in middle)
<b>LANDING GEAR SAND SHOES CRANK DEFLECTORS</b>	Holland, Mark V (LGS-4F315), with mounting plate, solid axles, galvanized. 10" x 11 1/2", solid axles. Road side. Landing gear deflector.
<b>BOGIE</b>	
<b>BASIC SUSPENSION</b>	
<b>SUSPENSION</b>	Hendrickson INTRAAX disc brake AAT-30K HXL5 (MAXX 22T), tridem, 60" spread. For axles with bearings HM 518445. *** Braking capacity reduced ***



ITEM	DESCRIPTION
<b>SUSPENSION (INTRAAX)(HXL5)</b>	*** Hendrickson strongly recommend for asphalte roads only *** Easy for rocks to infiltrate between the rotor and brake pads. OPTION "EXTENDED LIFE HXL5 PACKAGE" ON INTRAAX/VANTRAAX SUSPENSION.
<b>STROKE STOPPERS</b>	Seals (Federal Mogul), spindle nut (Precision), hub cap (Hendrickson) grease (Chevron Delo SF), bearings (HP).
<b>LIFT DEVICE</b>	Retaining chains for INTRAAX air suspensions with grounded axles.
<b>SPRINGS AXLE(S) SPIDERS CAM SHAFTS TRACK DUST SHIELDS BRAKES BEARINGS SLACK ADJUSTERS SEALS</b>	Hendrickson "UBL", bolted (removable) and galvanized with air system Manac. Front axle controlled from cab and rear axle manually controlled. Located: on front and on rear axle.
<b>SPRINGS AXLE(S) SPIDERS CAM SHAFTS TRACK DUST SHIELDS BRAKES BEARINGS SLACK ADJUSTERS SEALS</b>	Air. LDA, 5 3/4" diameter, 25 000 lbs. capacity. Welded.
<b>SPRINGS AXLE(S) SPIDERS CAM SHAFTS TRACK DUST SHIELDS BRAKES BEARINGS SLACK ADJUSTERS SEALS</b>	77 1/2". Steel, clamped.
<b>SPRINGS AXLE(S) SPIDERS CAM SHAFTS TRACK DUST SHIELDS BRAKES BEARINGS SLACK ADJUSTERS SEALS</b>	Hendrickson Maxx 22T HM 518445.
<b>SPRINGS AXLE(S) SPIDERS CAM SHAFTS TRACK DUST SHIELDS BRAKES BEARINGS SLACK ADJUSTERS SEALS</b>	Seal (Federal Mogul), Spindle nut (Precision), Hub cap (Hendrickson) Grease (Chevron Delo SF), Bearings (HP). 18/24
<b>BRAKE CHAMBERS HUBS AND DRUMS</b>	10 studs disc hubs, outboard mount, 285.75mm B.C., single flange nuts. For dual aluminium wheels.
<b>RIMS</b>	Alcoa, aluminum, "ULTRA ONE", 24.5 x 8.25, disc (10 holes), 285.75mm B.C., single flange nuts.
<b>SPACERS</b>	Wheel guard 10 holes. Located between the inside wheel and the drum and between two wheels.
<b>TIRES RIMS</b>	Plant choice Tire, 11 R 24.5, 16 ply, 43.6" dia. *** Those standard aluminum rims are not covered by a warranty for an off road application. ***
<b>AIR SYSTEM</b>	
<b>GLAD HANDS AIR VALVES VALVE</b>	Fixed. Meritor Wabco, ABS, 2 sensors 1 modulator.
<b>GLAD HANDS AIR VALVES VALVE</b>	Manual blow down valve in a control box, WITHOUT auto-reset feature, including Glycerin filled pressure gauge, in P.S.I., to indicate load with a conversion table.
<b>CONTROL BOX VALVES</b>	Stainless steel, 10 "high x 12" wide x 6 "deep. Used to close the supply of air to air bags. (2 per axle) (shut off).
<b>ACCESSORIES</b>	
<b>REGISTRATION HOLDER WINCHES</b>	One plastic, Betts-PS-1 or equivalent. Qty: 2, #5820 fix, encaved, located road side between first set.
<b>WINCHES</b>	Qty: 8, #5820 fix, tilted 45 degrees, located road side between bunks.
<b>WINCHES WINCHES</b>	Handle welded on each winch.



ITEM	DESCRIPTION
<b>STRAPS</b>	Qty: 10, nylon, with 1'-6" chain and grab hook, 30' long x 3" wide. (KINEDYNE)
<b>LASHING RINGS</b>	Qty: 10, lashing pockets on the opposite side of winch's.
<b>LASHING RINGS</b>	Qty: 10, lashing pockets located on winch supports to hang the cable hooks.
<b>MUD FLAPS</b>	Three fix sets, rubber with Manac logo and vertical grooves to reduce spray, located ahead of landing gear, at rear bumper and at front.
<b>EXTRA MUD FLAPS</b>	Black rubber w/logo Manac, logo toward the front (#303-0011). Located: Under the flanges ahead of the tridem, 48" wide. (To protect air booster & the suspensions).
<b>EXTRA MUD FLAP</b>	(1) Black rubber w/logo Manac, logo toward the rear, (#303-0011). Located: Under the flanges ahead of the landing gear, 48" wide. Ref: #212677
<b>CHAIN HOLDERS</b>	(4) welded on the main frames, 2 each side.
<b>HYDRAULIC LINES</b>	Holes only, 3" of diameter allowing hydraulic lines to run between the main beams over the coupler plate. Supports of lines welded under bunks until the loader.
<b>ACCESSORIES</b>	5 holes, (3 holes curbside and 2 holes roadside). Qty: 2 crapple holders: 2 rectangular tubings 4" wide x 3" high x 21" long x 3/8" thick. Attention: Each tube has a different opening. Located: FURTHEST MOST FRONT AND REAR (ref: #212677)
<b>BROOM HANGER</b>	Located at front ROADSIDE. *** Top to have cradle (L-brackets) to prevent broom from coming out*** (ref: #198782 + stopper))
<b>FINISHING</b>	No paint & no primer on the trailer.
<b>PAINT</b>	Trailer prepared & shipped to be galvanized.
<b>FINISHING</b>	**CAUTION MANAC NOT RESPONSABLE OF THE ESTHETICS OF THE GALVANISATION.**
<b>GRAVEL GUARD</b>	Apply gravel guard on the suspension hangers.
<b>HUBS</b>	Black.
<b>WHEELS OR RIMS</b>	Natural.
<b>RETROREFLECTIVE TAPES</b>	Conspicuity striping in compliance with CMVSS 108. Gray and red, each side, fully covers rear sill and horizontal underride protection bar, front and rear of each stake.
<b>ADDITIONAL OPTIONS</b>	
<b>SUB-CONTRACT BY MANAC PRO</b>	By: Multi-Remorque Soudure Inc. #708 Paint RED on exterior side of main frames. Authorization: #74392
<b>ANNEX(ES) ATTACHED</b>	Mark and model of loader: TBA Supplied by: TBA Installed by: TBA Appr. weight: TBA Fixed by ("U" bolts or others): TBA
<b>CONFORMITY</b>	This semi-trailer does not comply with GHG regulations. Should GHG regulations come into force prior to the production of the trailer(s), Manac will have the obligation to ensure the trailer(s) produced meet minimum GHG guidelines. Any modifications required to meet the GHG regulations will be added to the initial purchase price and charged back to the customer.

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.