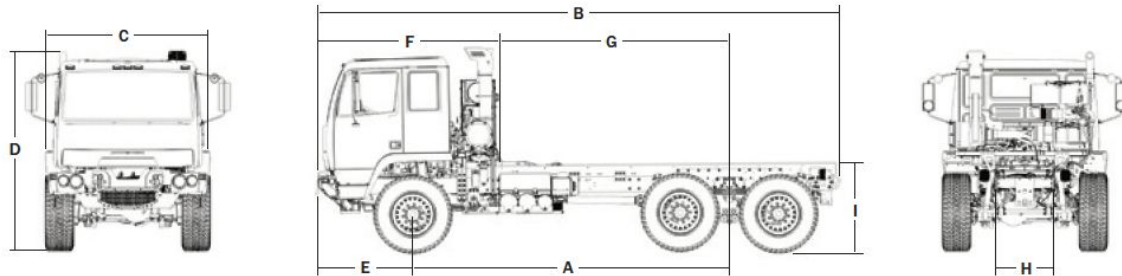


2012 BAE Brazos 6x6 Truck - Compliant with both emissions and safety requirements per US regulations. Wheelbase -172", 18' 4-Point independent subframe installed.

Sale Price: \$149,000 usd

Specifications as listed in the last column, this is a 6x6:



2012 SD BRAZOS™

All dimensions in inches (mm) unless otherwise stated.

Specifications		4x4 Cab Chassis	6x6 Cab Chassis
DIMENSIONS:			
A	Wheelbase	154 (3,900)	177 (4,500)
B	Length	257 (6,534)	292 (7,420)
C	Width	96 (2440)	96 (2440)
D	Height (max)	118 (2995)	118 (2995)
E	Front bumper to center of front axle	53 (1339)	53 (1339)
F	Front bumper to back of cab	73 (1853)	73 (1853)
G	Back of Cab to center of rear axle	102 (2569)	125 (3169)
H	Frame Rail Spacing	35 (875)	35 (875)
I	Load Floor Height	55 (1400)	55 (1400)
	Cab Tilt Angle in degrees	67°	67°
CAPACITIES:			
	Ground Clearance under body (unladen)	25 (635)	24 (610)
	Ground Clearance under axle (unladen)	14 (366)	14 (366)
	Approach/Departure angle	40/37	40/60
	Fording capability	30 (360)	30 (360)
	Turning diameter, curb-to-curb, ft. (m)	62 (19 m)	66 (20 m)
	Turning diameter, wall-to-wall, ft. (m)	66 (20 m)	70 (21 m)
	Curb weight, lbs. (kg)	14,400 (6,532)	18,000 (8,165)
	Maximum Payload, lbs. (kg)	10,300 (4,672)	15,000 (6,804)
	Gross Vehicle Weight Rating (GVWR), lbs. (kg)	24,700 (11,204)	33,000 (14,968)
	Front Gross Axle Weight Rating (GAWR), lbs. (kg)	15,000 (6,804)	15,000 (6,804)
	Middle Gross Axle Weight Rating (GAWR), lbs. (kg)	N/A	11,950 (5,420)
	Rear Gross Axle Weight Rating (GAWR), lbs. (kg)	17,000 (7,711)	11,950 (5,420)
	Maximum trailer capacity lbs. (kg) (w/optional pintle)	12,000 (5,443)	21,000 (9,525)
	Towing: 2" Receiver Gross Tongue Weight (GTW) (On-highway rating) (Class 5 hitch)	10,000 (4,536)	10,000 (4,536)
	Optional pintle tongue load (max)	1,200 (544)	2,100 (953)
	Trailer braking: air brake glad hands, RV-style trailer connector	7 Pin	7 Pin
	Fuel capacity, gallons (liters)	54 (204)	54 (204)
	Seating capacity	2	2
KEY FEATURES:		Horsepower	Torque
	6.7L Cummins® ISB Turbo Diesel	325 HP @ 2400 RPM	750 lb-ft @ 1800 RPM
2010 Emissions Certified			
Allison Transmission® 3700 SP 7 speed, Automatic with Integrated Transfer Case			
Drive Train: Continuous All Wheel Drive			
DANA® Central Tire Inflation System – Operation modes: Highway, Cross-Country, Sand/Mud/Snow, and Emergency			
Meritor® 4-Channel Anti-Lock Brake System (ABS)			
Tires: Goodyear® MV/T 395/85R20			
Steering Column: Tilt & Telescope			

Published dimensions indicated are without optional equipment or accessories. Additional accessories or equipment ordered at the customer's request can result in a minor change in these dimensions.

This project was documented both here:

<http://www.expeditionportal.com/forum/threads/116121-I-ve-been-doing-a-little-design-work>

And here:

<http://www.expeditionportal.com/forum/threads/127221-SherpAlypto>

Originally planned as an expedition vehicle. It's journey is listed below.

Dec. 2013

In Sealy Texas at BAE doing a final walk through before delivery of a brand new (ok it does have a whopping 71.9 miles on it - of which I am guilty of about 4 of those) 2012 6x6 - not bragging, just stinking excited.



Jan. 2014

The truck is on it's way (<http://www.mtpdrivetrain.com>) to have the gearing changed out from the 7.8:1 ratio to the 6.14:1 ratio and having the ECU for the transmission reprogrammed (aka 'flashed') so that everything changes gears at and when it should as well as having the speedometer post the correct speed.

Top speed under the lower gear ratio was 58mph and at apx. 2400 rmp. Under this new ratio the top speed will be governed at 70mph with an apx. 2400 rmp and at 65mph rpm's would be apx. 2200.

SD Truck 900168









Feb 2014

The truck has had all the work done on the gearing side of things. And now it is at it's new home for at least a little bit. <http://www.crumptruck.com>
<https://www.facebook.com/Crump-Truck-and-Trailer-Works-Inc-251776481612287/>



View of 2012 BAE 6x6 (compliant) truck at Crump Truck, Springfield MO. Here the truck is slated to have a frame rail extension of apx. 20 inches using existing bolt hole patterns found in the BAE. Additionally a subframe will be designed by Holden Industries, Inc. and installed by Crump (see below)

On Crump Trucks Facebook page the frame rail extension can be seen starting on Jan. 26, 2015

Below: Picture shows BAE 6x6 prior to frame rail extension with two additional spare tires included from BAE at time of purchase.





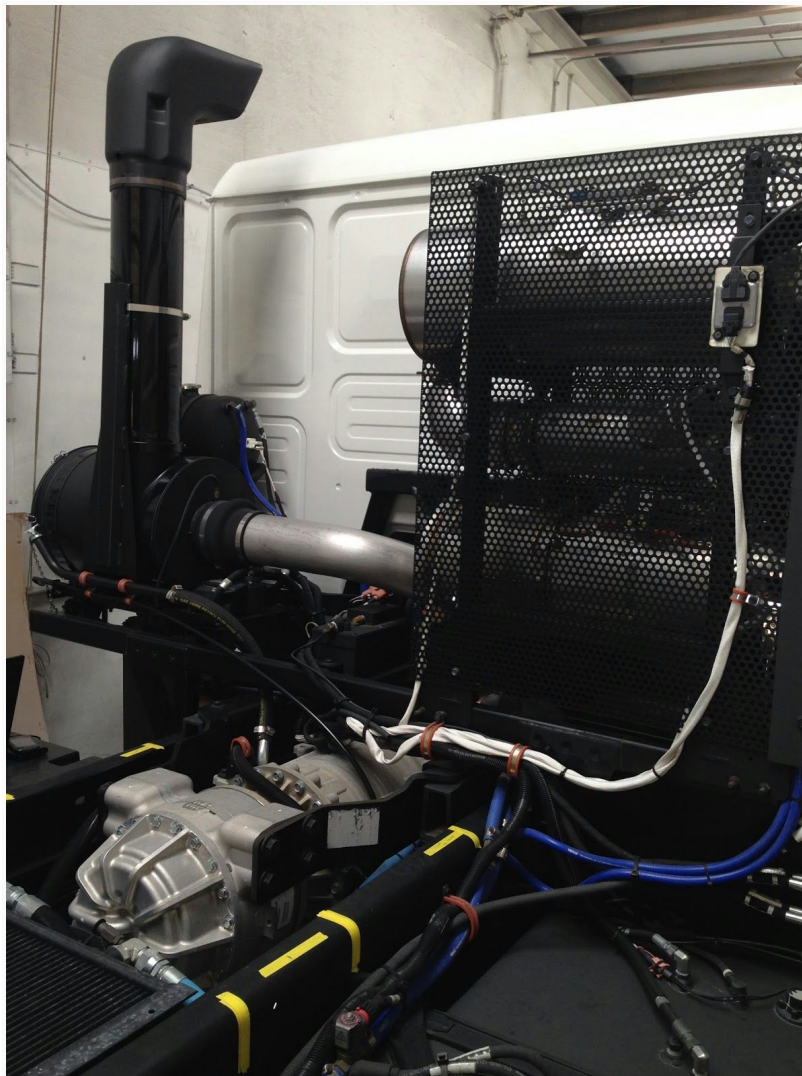
Interior of the cab of the BAE 6x6.



Shot of CTIS system. This BAE 6x6 is manufactured with CTIS installed as part of the base model of the truck.

Jun. 2014

The trucks standard wheelbase is 177" as measured between the two rear axels. This is the distance between the center of the front axel, to the center between the two rear axels. This puts the center (middle) axel at apx. 150" We are shifting the axels backward (to the rear) from their current location apx. 22". This would put the center/middle axel right at about 172". By doing this we will have added valuable frame rail space for storage and fuel. At the same time it maximizes the departure angle to nearly 50 degrees. My current truck, a 3500 Dodge 4x4 has 162" wheelbase. So this extra 10" of wheelbase extension compared to what I am use to already, seems negligible. Especially when I consider I am going from 9" of clearance to 19" of clearance.



The yellow tape lines show where the front of the box will be and where the front pivot will be for the subframe.

Section 3.4 GVWR and GAWR

It is the responsibility of the body builder and/or final-stage manufacturer to ensure that the GVWR of the truck will not be exceeded when the vehicle is placed into its final intended service application. The numbers shown in Table 5 for axle loadings are the approximate weights that can be expected for the cab chassis. If load calculations for the final vehicle, based on these values for the cab and chassis, indicate that when configured for the intended application the truck may exceed or be very close to the GVWR, it is advisable to confirm the actual weights from the cab and chassis to be used. BAE systems has developed a spreadsheet-based program that can be used to estimate expected final vehicle axle and gross vehicle weights. Contact BAE Systems if you wish to obtain a copy.

Table 5. GVWR and GAWR

	Unladen Axle Loadings lbs (kg)				GVWR lbs (kg)	GAWR lbs (kg)		
	Front	Middle	Rear	Total	Total	Front	Middle	Rear
4x4 3900 mm Wheelbase	10015 lbs (4543 kg)	N/A	4625 lbs (2098 kg)	14640 lbs (6641 kg)	24700 lbs (11200 kg)	15000 lbs (6804 kg)	N/A	17000 lbs (7711 kg)
6x6 4500 mm Wheelbase	9800 lbs (4445 kg)	3775 lbs (1712 kg)	3775 lbs (1712 kg)	17350 lbs (7870 kg)	33000 lbs (14970 kg)	15000 lbs (6804 kg)	11950 lbs (5420 kg)	11950 lbs (5420 kg)

NOTE: this is the 6x6 vehicle

Jan. 26, 2015

Frame rail extension begins:



Cutting the rear suspension loose and drilling holes for a longer wheel base.





Original frame rails have been cut and prepped. Extension metal has been ordered from P.G. Adams.



Welding the lower frame rail extensions on.



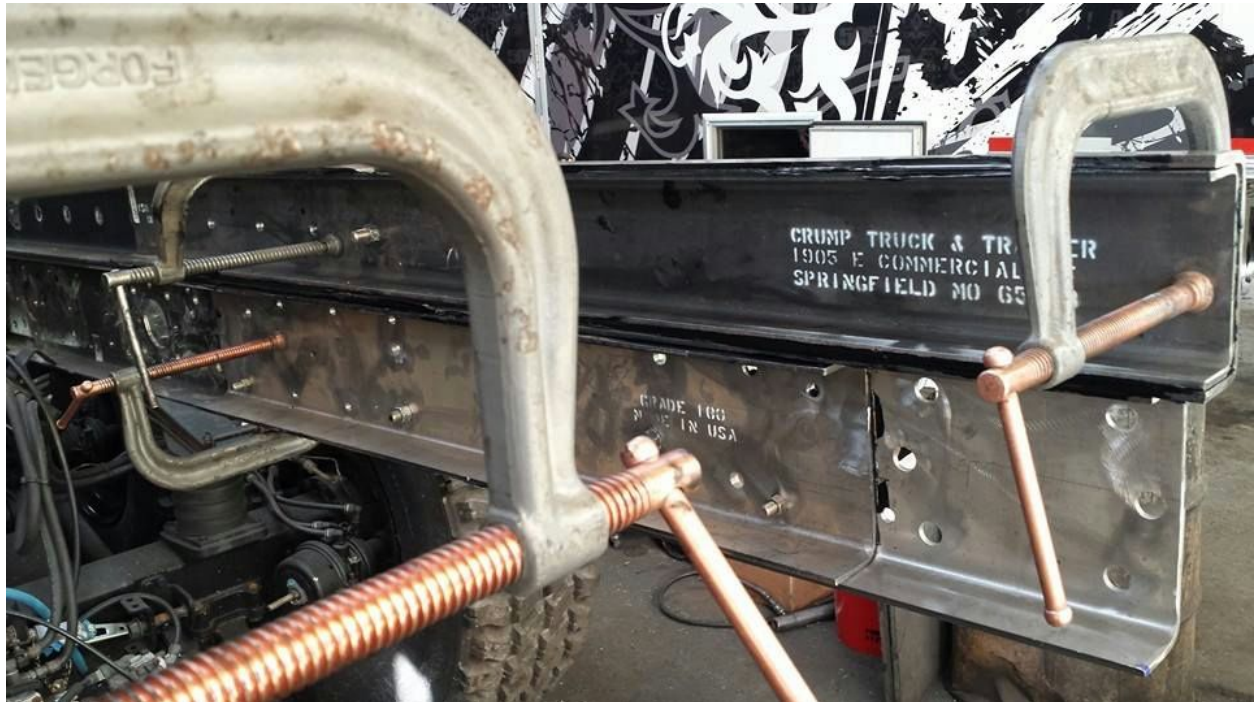
Laying out the reinforcements for the lower rails and drilling holes!



Adding on the upper rail extensions.



Installing reinforcements for the upper and lower frame rail extensions. We use a high strength adhesive/sealer between them, effectively bonding the pieces so they become one unit. This not only adds strength, but it also prevents rust from forming between them.



Feb. 2015 - Epoxy primer has been applied to the bare metal and a preliminary coat of black urethane paint as well.





Starting the reassembly phase. The rear axle and suspension assembly is being installed in its new position. Our tech is using OEM style Huck fasteners for factory look and strength.







Into the paint booth for a final coat of black paint.



Feb. 2015

It's a wrap! It's been a long process, but a great final product. This vehicle is ready for a custom body to be installed. Then the owner will be on to some real adventures! Maybe he will send us some awesome pictures.



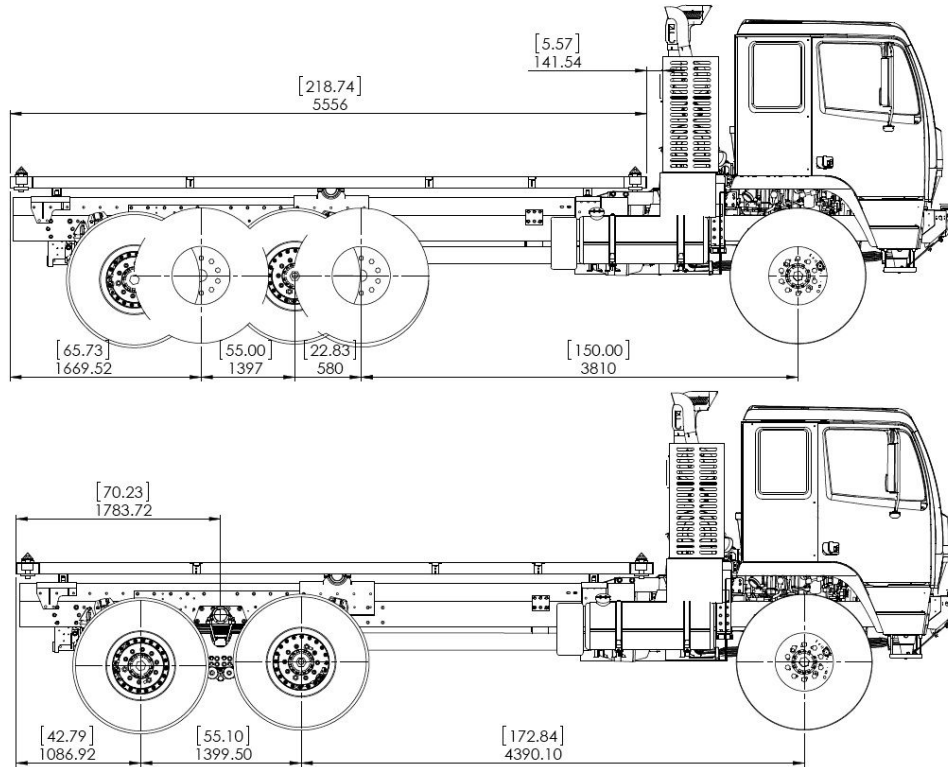








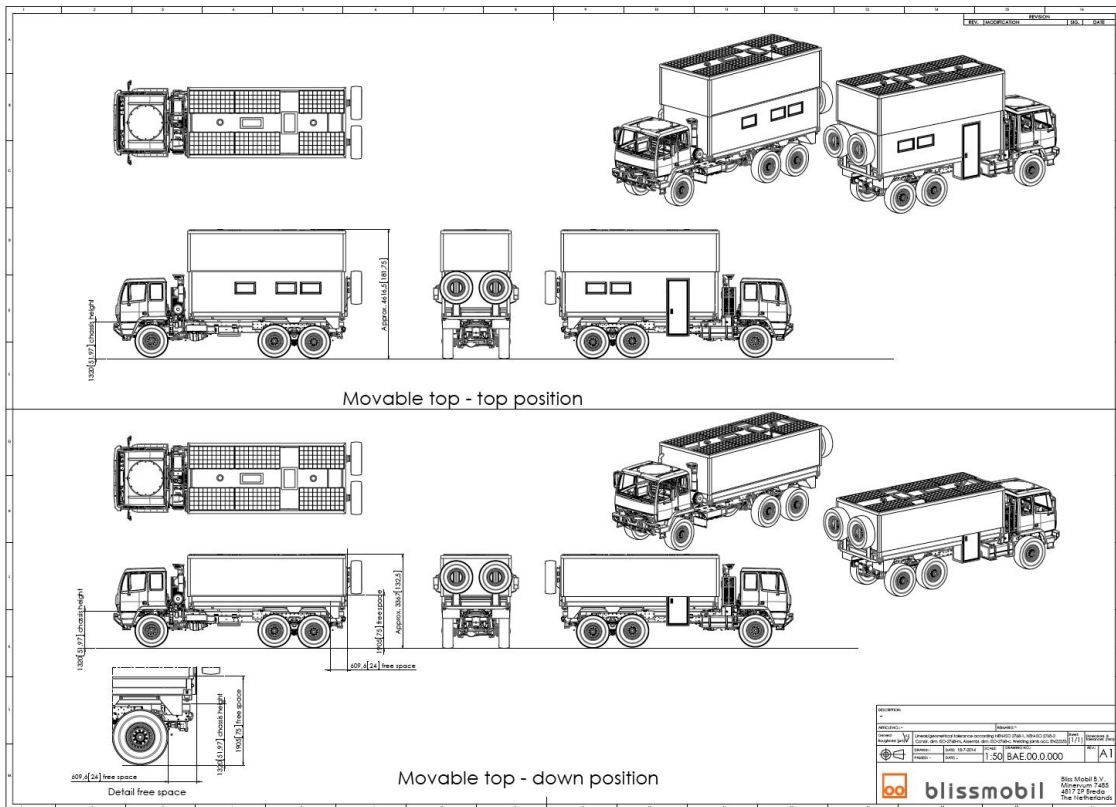
From Here to There - of note is that the frame did not need to be lengthened. Just the axles relocated. In the schematic drawings you can see all the bolt holes around that area, the axles were meant to be adjustable (save for things like drive shaft, etc), as originally designed by BAE.



Next comes the subframe: This is a four point subframe which helps reduce stress on the frame while simultaneously keeping the 'camper' box stable.



This was/is the concept here:



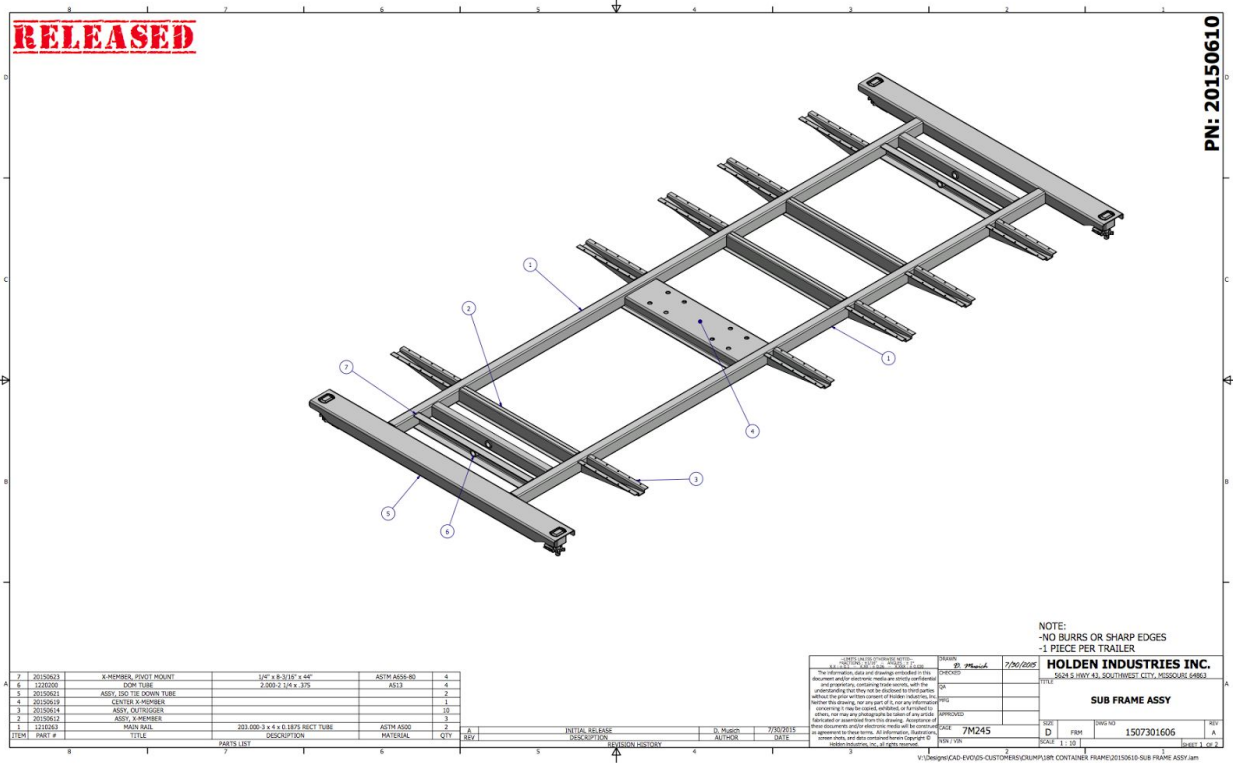
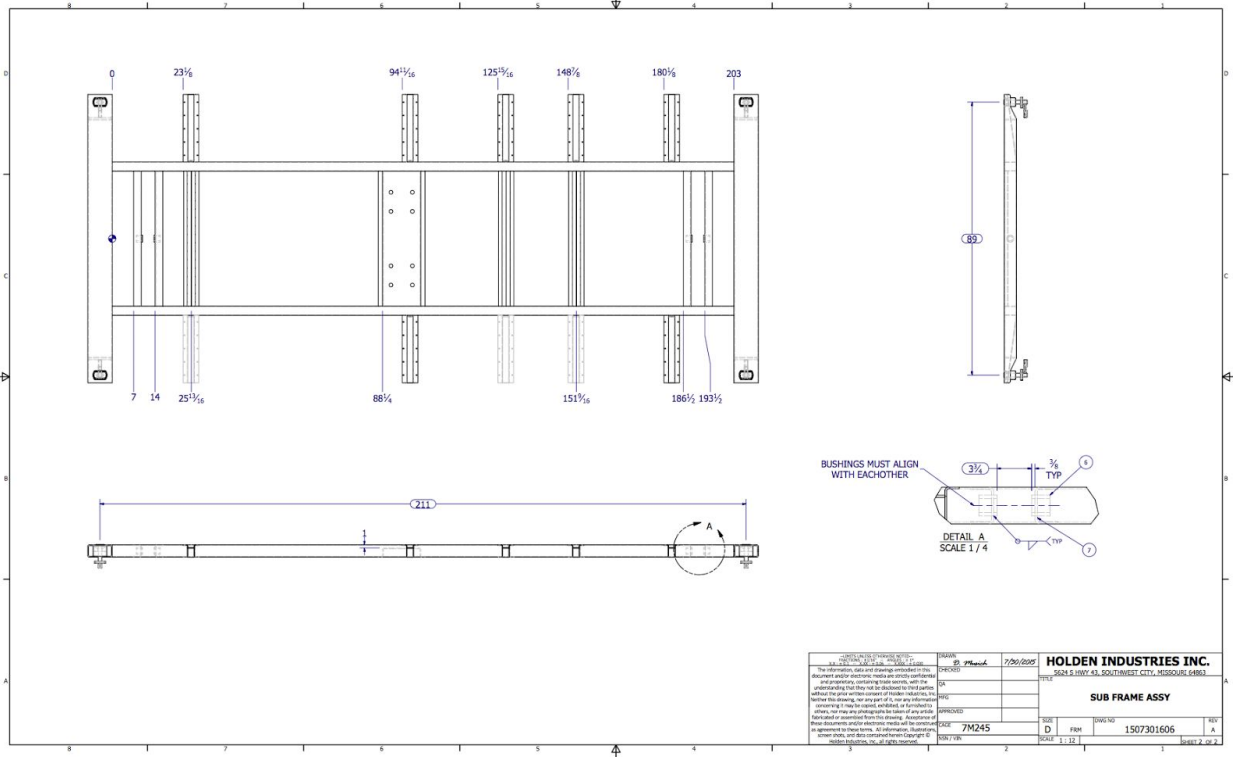
The engine and truck have fewer than 150 miles on it. Essentially it is a brand new truck. Here is a shot of the engine compartment showing the Cummins Engine:



Even though the transfer case was changed out from a lower gear ratio to a higher gear ratio, done for better travel speeds on highway only); should anyone wish to incorporate a transfer case which could do both, that is possible. See here: <https://www.marmon-herrington.com/oem/t30.php>

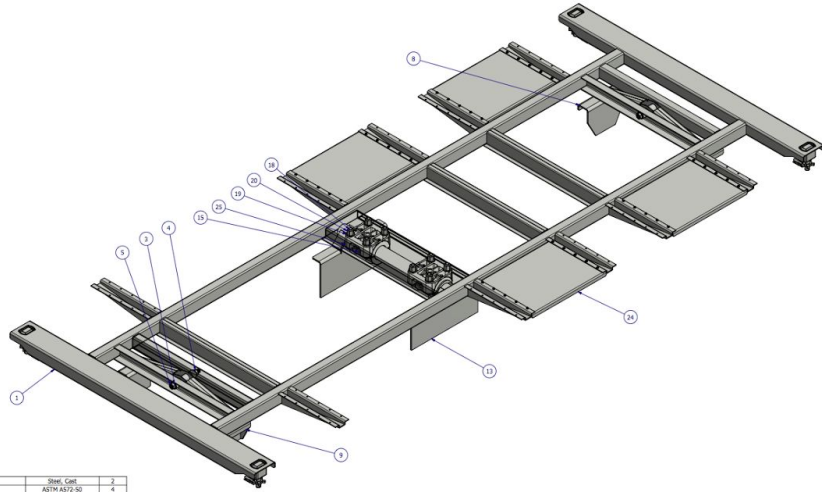


Aug. 2015
 Design of subframe completed by Holden Trailers



RELEASED

PN: 8080501



ITEM	PART #	DESCRIPTION	MATERIAL	QTY
20	891 00	TRUCK MOUNT	Steel, Cast	2
21	2119044	WHEEL COVER	ASTM A575-50	4
22	2202180	BOLT, 1/4" x 3/4" x 1" GR5, HXCS	Steel	40
23	2202140	LOCKWASHER, 1/4" DIA, HXCS, 105	Steel	40
24	2204220	FLAT WASHER, 1/4" DIA, ZINC	Steel	40
25	836 00	WEL	Steel	8
10	837 00	FLAT WASHER	Steel	8
18	828 00	SE BOLT, LOCKWASHER & WEL W/HEAD	WEL	4
15	892 00	TRUCK MOUNT	Steel, Cast	2
16	890 00	TRUCK MOUNT	Steel	2
11	2119068	ASSY, CHASSIS MOUNT, TRUCK MOUNT	Steel	1
12	1016550	BOLT, 5/8" x 2 1/2" x 3/8" GR5, HXCS	Steel	4
13	2119063	FLATWASHER, 5/8" DIA x 2-1/2" OD	MCHAISTER	4
14	101624 0000	BOLT, FRONT	YBRATONMOUNTS.COM	4
9	2119063	ASSY, CHASSIS MOUNT, FRONT	Rubber	2
8	2119062	ASSY, CHASSIS MOUNT, BRK	Steel	2
7	2119062	ASSY, PIVOT BRACKET	Steel	2
6	2119069	BOLT, 1/4" x 3/4" GR5, HXCS	MCHAISTER	2
5	2119069	WASHER, FLAT, 1/4" DIA	MCHAISTER	2
4	2119069	WEL	MCHAISTER	4
3	2119069	BRUSH, SLIDE BEARING	BRONZE, Cast	4
2	2119069	SUB FRAME ASSY	MCHAISTER	1

NOTE:
-PIVOT MOUNT & SUB FRAME ASSY
-NO BURRS OR SHARP EDGES
-1 PIECES PER TRUCK

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<p>DATE: 7M245</p>	<p>SCALE: 1:10</p>

Building of the subframe begins and is delivered to Crump Truck in Oct. 2015









Subframe being installed on BAE 6x6















Work completed Feb. 2016