

# **2003 MEDIUM DUTY C SERIES – FAMILY 2**

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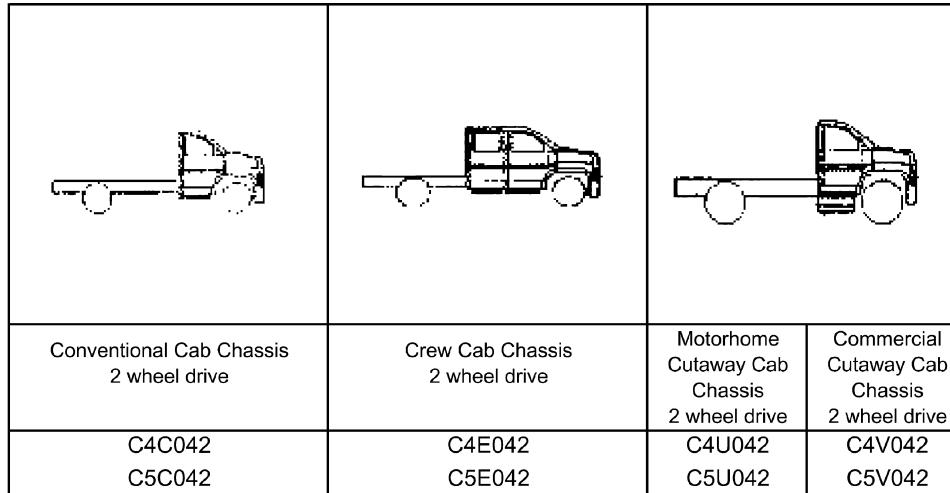
WHEELS AND TIRES .....	See C-Series Wheel & Tire Section
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ELECTRICAL .....	See C-Series Electrical Section
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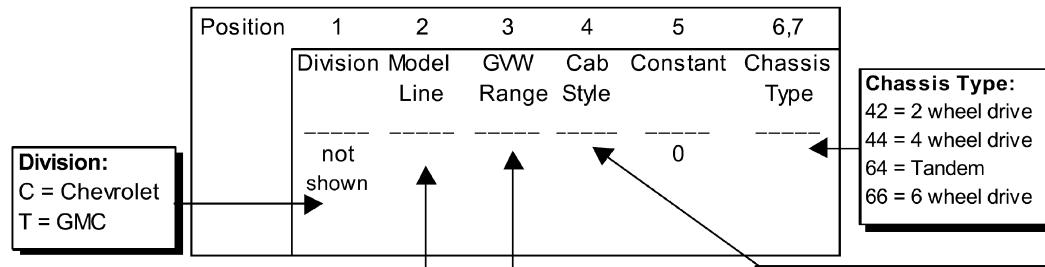
# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## MODEL SYMBOL CHART



### MODEL DESIGNATOR KEY:



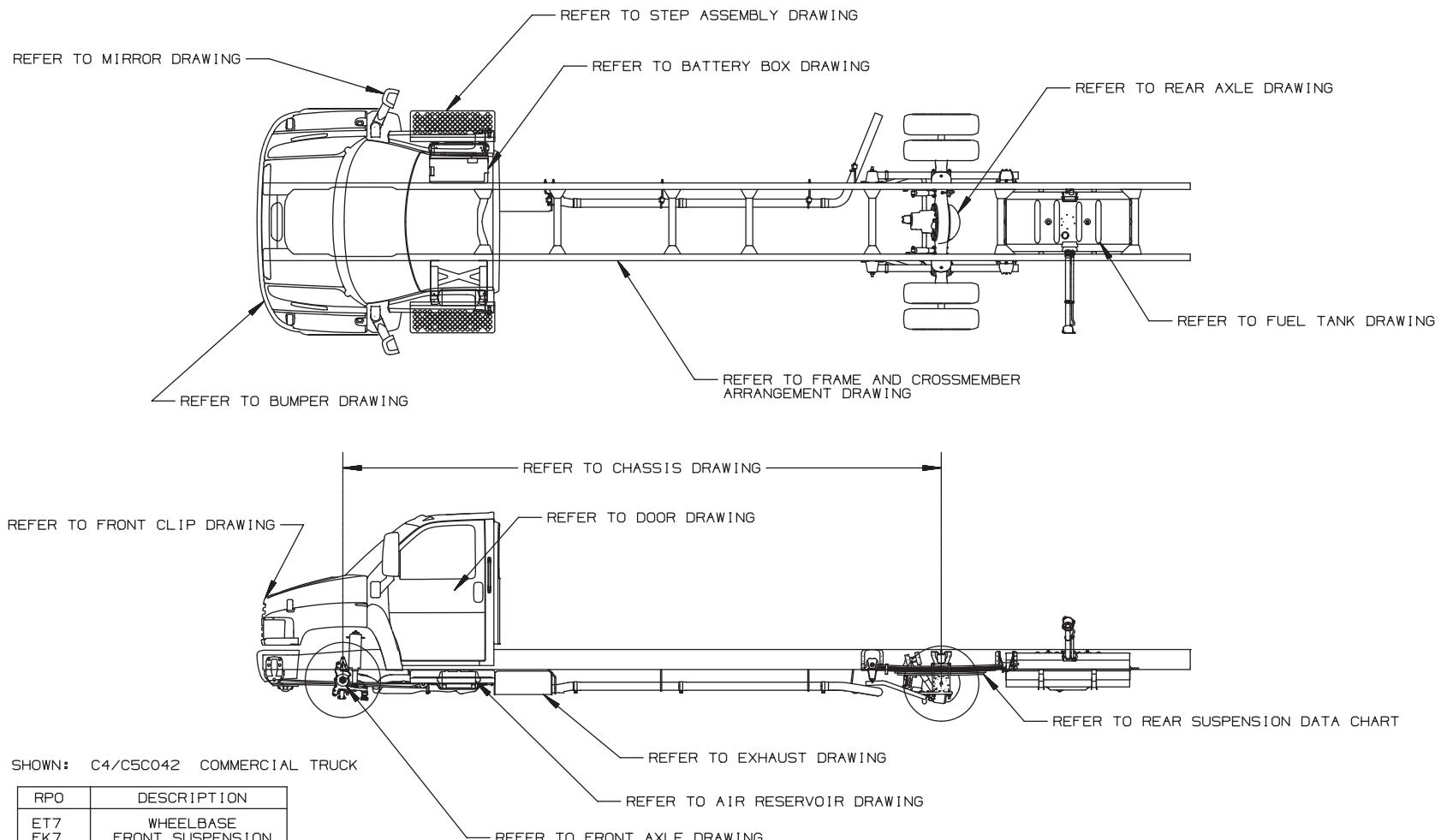
**General Information:**  
**RPO Code**      **VDS Books**  
X88 = Chevrolet    10 = Family 2  
Z88 = GMC

**Model Line:**  
C = C Series  
T = T Series

**GW Range:**  
4 = 16000 - 18000  
5 = 18001 - 19500

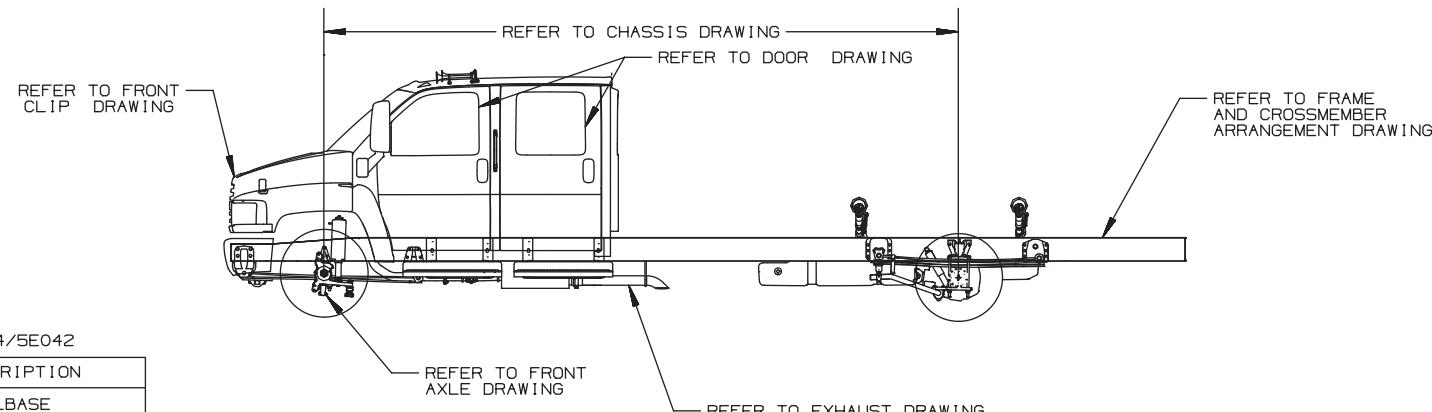
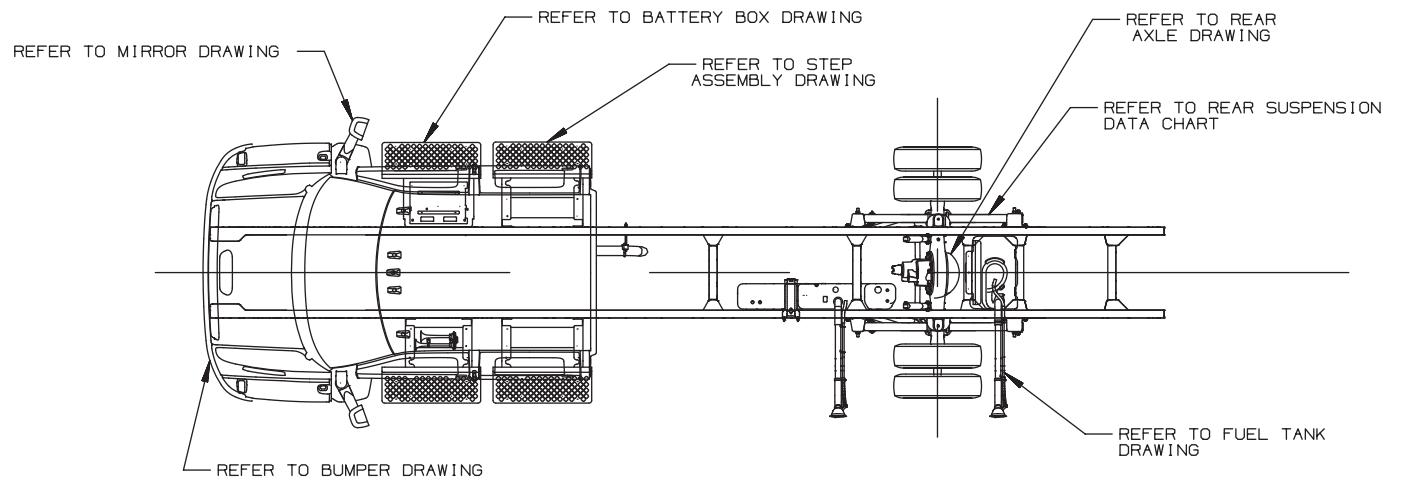
**Cab Style:**  
C = Conventional  
E = Crew  
U = Motorhome Cutaway  
V = Commercial Cutaway

## C4/C5C,U,V042 General Arrangement



TD005951

## C4/C5E042 General Arrangement



SHOWN: C4/5E042

RPO	DESCRIPTION
FRP	WHEELBASE
FK6	FRONT SUSPENSION
GXA	REAR SUSPENSION
NB5	EXHAUST
NG6	FUEL TANK

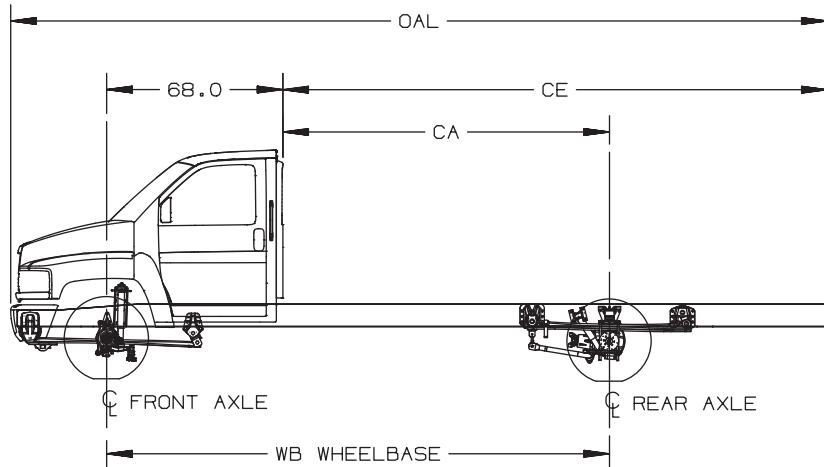
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# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5C042 Body Payload Weight Distribution



NOTES:

\* PERCENTAGES ALLOWED FOR 3" CB (CAB TO BODY CLEARANCE) AND ARE BASED ON EVEN DISTRIBUTION OF WEIGHT (FORMULA: (CA-CB-1/2BL)/WB CGA OR % FRONT AXLE)

\*\* EFFECTIVE LENGTH IN WHICH FRONT AXLE LOAD IS 6% OR LESS IS NORMALLY POOR DISTRIBUTION

C4C/C5C042 BODY-PAYOUT WEIGHT  
DISTRIBUTION (% FRONT / % REAR) \*

DIMENSIONS (IN)				** BODY LENGTHS (FT)											
WHEELBASE	CA	CE	OAL	8	9	10	12	14	15	16	17	18	19	20	
EC9/128	[ 60.0 ]	[ 100.5 ]	[ 205.5 ]	7/93	2/98										
EG9/152	[ 84.0 ]	[ 146.6 ]	[ 250.6 ]	22/78	18/82	14/86	6/94								
FNW/176	[ 108.0 ]	[ 177.7 ]	[ 282.7 ]			26/74	19/81	12/88	9/91	5/95					
EK8/188	[ 120.0 ]	[ 204.0 ]	[ 309.1 ]				24/76	18/82	14/86	11/89	8/92	5/95			
EK4/194	[ 126.0 ]	[ 210.0 ]	[ 315.0 ]					20/80	17/83	14/86	11/89	8/92	5/95		
EK5/206	[ 138.0 ]	[ 222.0 ]	[ 327.0 ]						22/78	19/81	16/84	13/87	10/90	7/93	

[ ] = INCHES

FOR: GMT 560, C4C0/C5C042, 2003

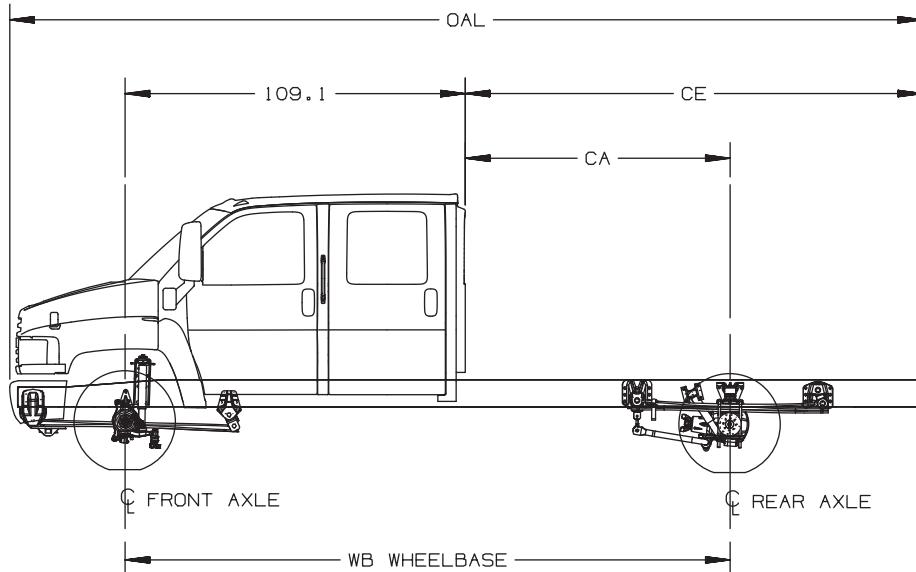
FOR MILLIMETER CONVERSION MULTIPLY X 25.4

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# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5E042 Body Payload Weight Distribution



### NOTES:

\* PERCENTAGES ALLOWED FOR 3" CB (CAB TO BODY CLEARANCE) AND ARE BASED ON EVEN DISTRIBUTION OF WEIGHT (FORMULA: (CA-CB-1/2BL)/WB CGA OR % FRONT AXLE)

\*\* EFFECTIVE LENGTH IN WHICH FRONT AXLE LOAD IS 6% OR LESS IS NORMALLY POOR DISTRIBUTION

C4E/C5E042 BODY-PAYOUT WEIGHT DISTRIBUTION (% FRONT / % REAR) \*

DIMENSIONS (IN)				** BODY LENGTHS (FT)											
WHEELBASE	CA	CE	OAL	7	8	9	10	12	14	15	16	17	18	19	
FPP/169	[ 59.9 ]	[ 121.6 ]	[ 267.7 ]	9/91	5/95										
EK4/194	[ 84.9 ]	[ 146.6 ]	[ 292.7 ]	21/79	17/83	14/86	11/89	5/95							
ED7/217	[ 107.9 ]	[ 191.9 ]	[ 337.9 ]			23/77	21/79	15/85	10/90	7/93	4/96				
EQ4/229	[ 119.9 ]	[ 203.9 ]	[ 350.0 ]					20/80	14/86	12/88	9/91	7/93	4/96		
FRP/235	[ 125.9 ]	[ 210.0 ]	[ 356.0 ]					22/78	17/83	14/86	11/89	9/91	6/94	4/96	

[ ] = INCHES

FOR: GMT 560, C4E0/C5E042, 2003

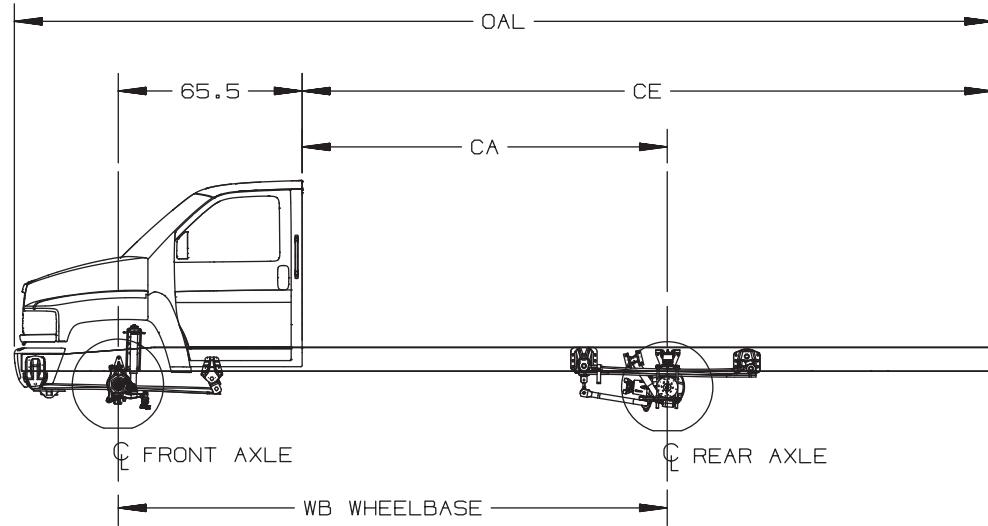
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# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5U042 RV Cutaway Body Payload Weight Distribution



NOTES:  
DISTRIBUTION OF WEIGHT  
(FORMULA:  $(CA - 1/2BL) / WB$  CGA  
OR % FRONT AXLE)

\*\* EFFECTIVE LENGTH IN WHICH  
FRONT AXLE LOAD IS 6% OR  
LESS IS NORMALLY POOR  
DISTRIBUTION

C4U0/C5U042 BODY-PAYOUT WEIGHT  
DISTRIBUTION (% FRONT / % REAR) \*

DIMENSIONS (IN)				** BODY LENGTHS (FT)											
WHEELBASE	CA	CE	OAL	9	10	12	14	15	16	17	18	19	20	22	23
EC1/165.5	[ 100.0 ]	[ 183.9 ]	[ 286.4 ]	28/72	24/76	17/83	10/90	6/94							
EC2/183.5	[ 118.0 ]	[ 218.4 ]	[ 320.9 ]			25/75	19/81	15/85	12/88	9/91	5/95				
EC3/195.5	[ 130.0 ]	[ 245.9 ]	[ 348.4 ]				24/76	20/80	17/83	14/86	11/89	8/92	5/95		
EC4/213.5	[ 148.0 ]	[ 264.1 ]	[ 366.5 ]						24/76	22/78	19/81	16/84	13/87	7/93	5/95

FOR: GMT 560, C4U0/C5U042, 2003

[ ] = INCHES

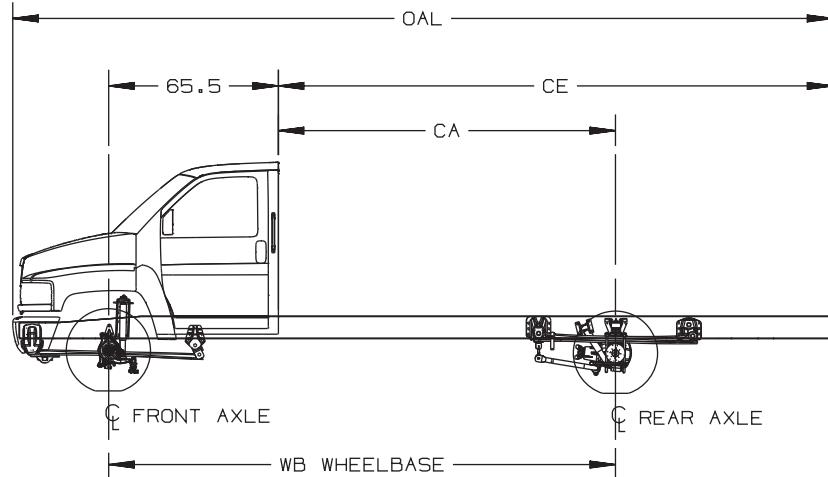
FOR MILLIMETER CONVERSION MULTIPLY X 25.4

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# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5V042 Commercial Cutaway Body Payload Weight Distribution



NOTES:  
DISTRIBUTION OF WEIGHT  
(FORMULA: (CA - 1/2BL)/WB CGA  
OR % FRONT AXLE)

\*\* EFFECTIVE LENGTH IN WHICH  
FRONT AXLE LOAD IS 6% OR  
LESS IS NORMALLY POOR  
DISTRIBUTION

C4V0/C5V042 BODY-PAYOUT WEIGHT  
DISTRIBUTION (% FRONT / % REAR) \*

DIMENSIONS (IN)				** BODY LENGTHS (FT)												
WHEELBASE	CA	CE	OAL	9	10	12	14	15	16	17	18	19	20	22	24	26
EC1/165.5	[ 100.0 ]	[ 170.7 ]	[ 273.2 ]	28/72	24/76	17/83	10/90	6/94								
EC2/183.5	[ 118.0 ]	[ 201.9 ]	[ 304.3 ]			25/75	19/81	15/85	12/88	9/91	5/95					
EC3/195.5	[ 130.0 ]	[ 213.9 ]	[ 316.3 ]				24/76	20/80	17/83	14/86	11/89	8/92	5/95			
EQE/220	[ 154.5 ]	[ 260.8 ]	[ 363.3 ]					29/71	27/73	24/76	21/79	18/82	16/84	10/90	5/95	
EQ8/233	[ 167.5 ]	[ 273.8 ]	[ 376.3 ]						28/72	26/74	23/77	20/80	15/85	10/90	5/95	
EQ1/246	[ 180.5 ]	[ 286.8 ]	[ 389.3 ]							29/71	27/73	25/75	20/80	15/85	10/90	
ET7/259	[ 193.5 ]	[ 299.8 ]	[ 402.3 ]								28/72	24/76	19/81	14/86		

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FOR: GMT 560, C4V0/C5V042, 2003

FOR MILLIMETER CONVERSION MULTIPLY X 25.4

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# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## Formulas for Calculating Height Dimensions to Top of Frame

### Front Axle

#### **Sample Data:**

Model	Tire	Tire Loaded Radius	LH	C	D
C5C042	225/70R19.5F R3C/S3C (Goodyear)	15"	8.27"	6.78"	4.83"
Frame Reinforcement RPO	Wheelbase	Suspension RPO	Axe RPO		
F08	EG9	FK7 (6,000 lb)	FN9 (6,000 lb)		

#### **Formulas:**

$$CH = C + \text{Tire Loaded Radius} + LH$$

$$DH = D + \text{Tire Loaded Radius} + LH$$

$$CH = 6.78" + 15" + 8.27" = 30.05"$$

$$DH = 4.83" + 15" + 8.27" = 28.1"$$

#### **Definitions:**

C – Centerline of axle to bottom inside of rail at curb position

D – Centerline of axle to bottom inside of rail at design load

LH – Distance from the bottom inside rail to the top of the rail

**NOTE:** See the tire data charts for the following values: Tire Model and Tire Loaded Radius.

For the C & D values see the Front Axle and Suspension Chart.

For the LH values see the Frame Length with Reinforcements section.

#### **Step Height Dimensions:**

When calculating step height dimensions see the step assembly location, and the frame drawings for values.

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## **Formulas for Calculating Height Dimensions to Top of Frame**

### **Rear Axle**

#### **Sample Data:**

Model	Tire	Tire Loaded Radius	LH	C	D
C5C042	225/70R19.5F S3H (Goodyear)	15.1"	8.35"	8.63"	6.41"
Frame Reinforcement RPO	Wheelbase	Suspension RPO	Axe RPO		
F08	EK8	GR4 (13,500 lb)	GL8 (13,500 lb)		

#### **Formulas:**

$$CH = \text{Tire Loaded Radius} + C + LH$$

$$DH = \text{Tire Loaded Radius} + D + LH$$

$$CH = 15.1" + 8.63" + 8.35" = 32.08"$$

$$DH = 15.1" + 6.41" + 8.35" = 29.86"$$

#### **Definitions:**

C – Centerline of axle to bottom inside of rail at curb position

D – Centerline of axle to bottom inside of rail at design load

LH – Distance from the bottom inside rail to the top of the rail

**NOTE:** See the tire data charts for the following values: Tire Model and Tire Loaded Radius.

For the C & D values see the Rear Axle and Suspension Chart.

For the LH values see the Frame Length with Reinforcements section.

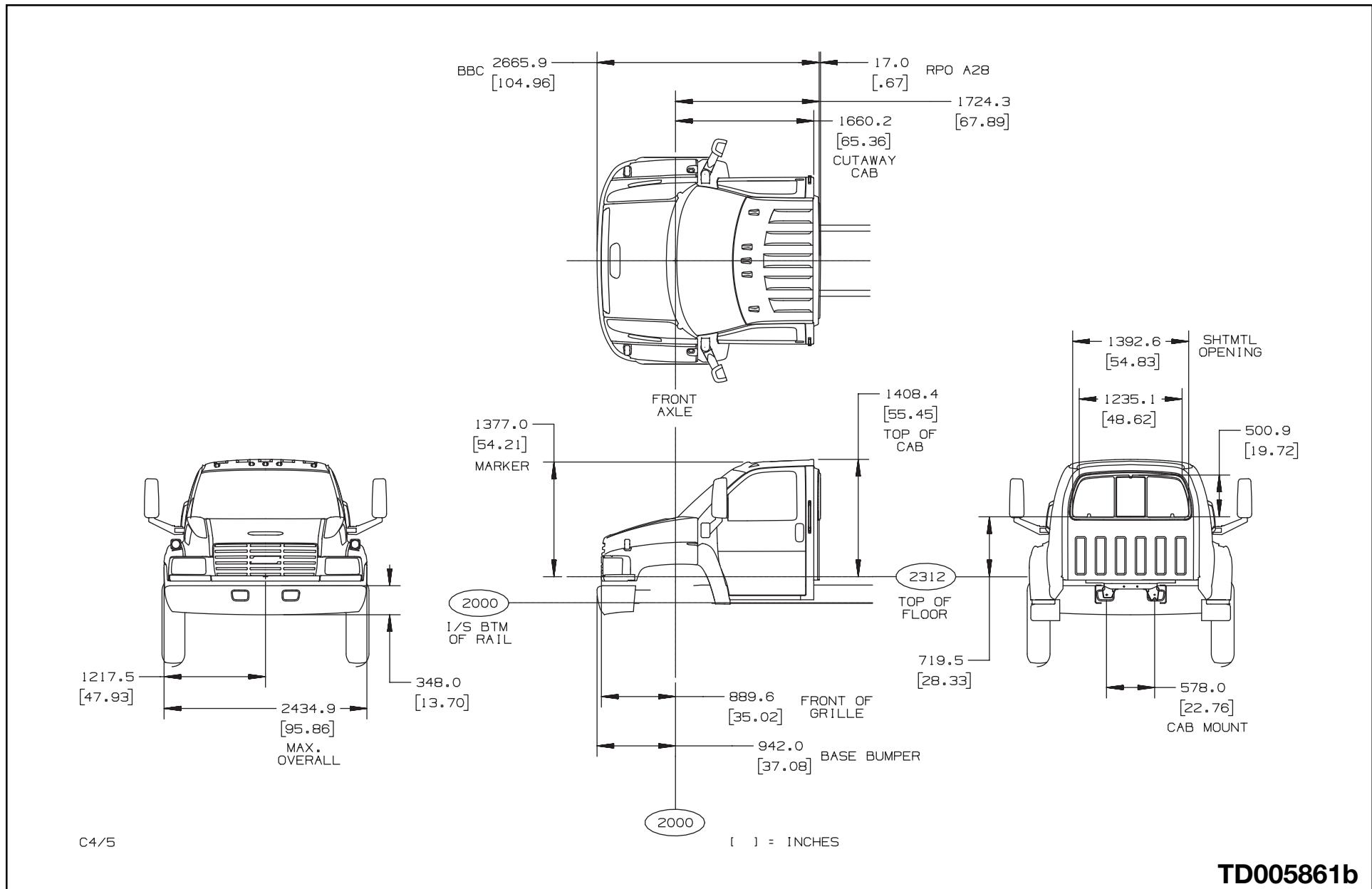
#### **Step Height Dimensions:**

When calculating step height dimensions see the step assembly location, and the frame drawings for values.

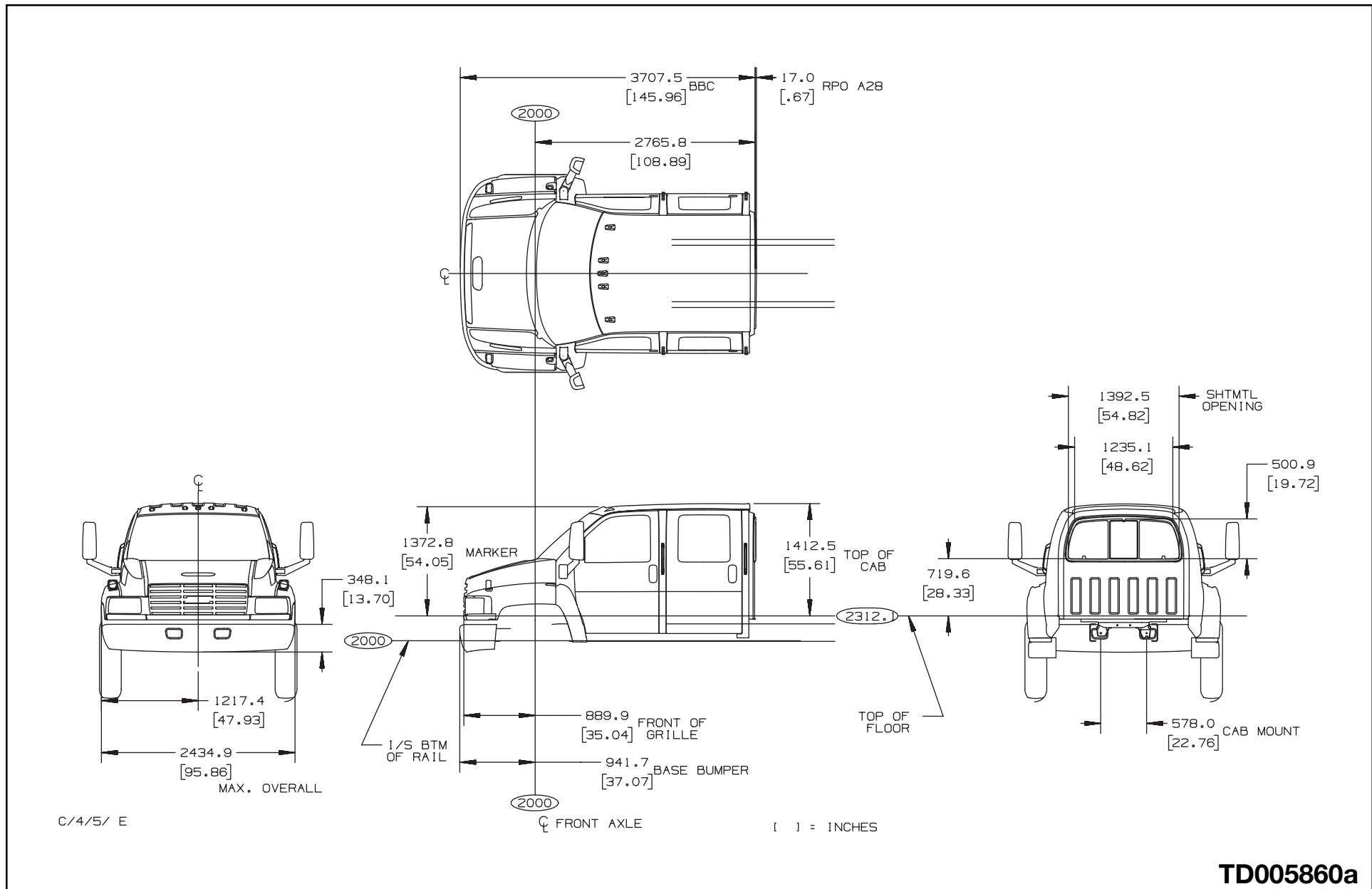
# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5C,U,V042 Regular Cab Exterior

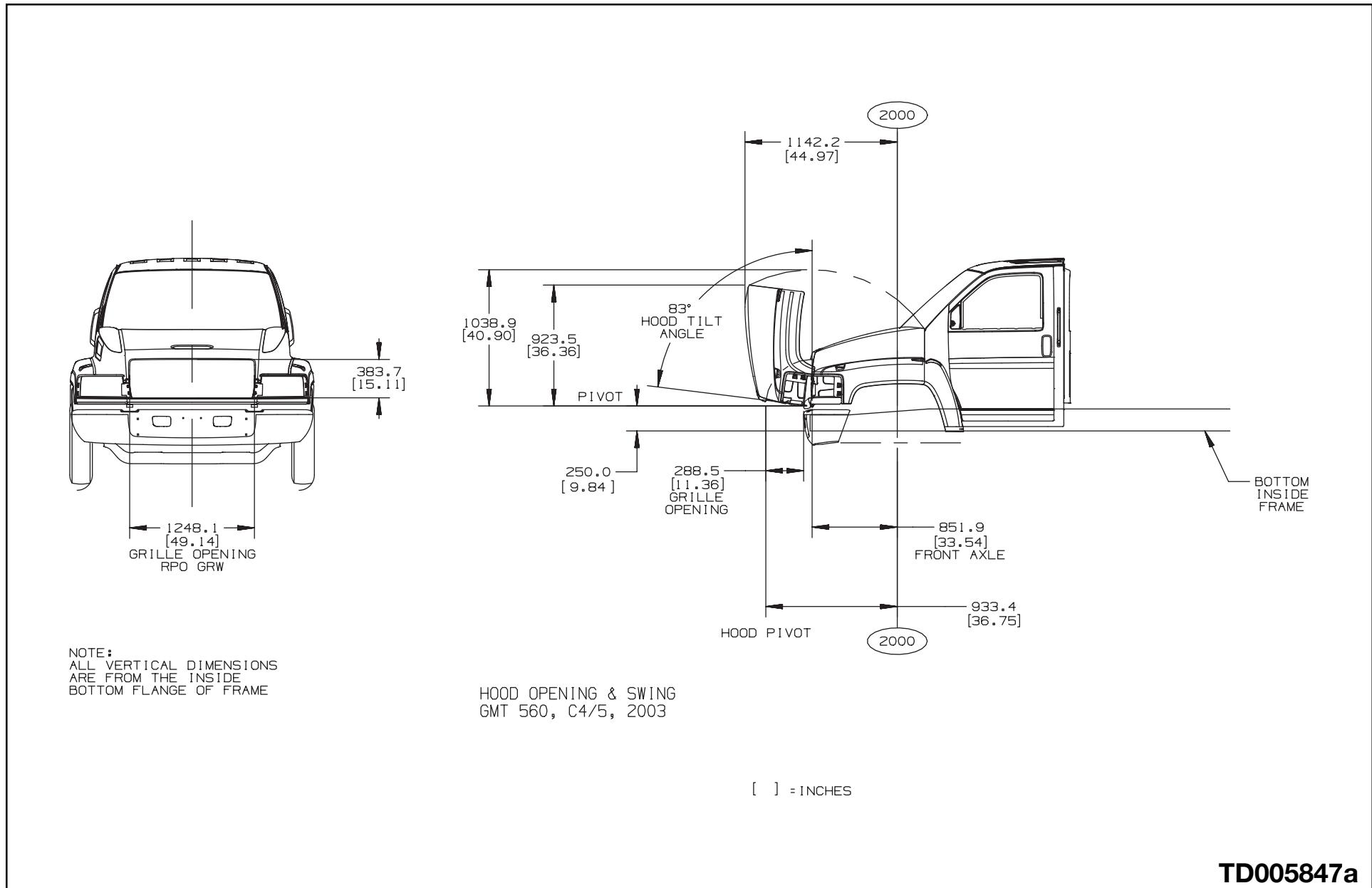


## C4/C5E042 Crew Cab Exterior



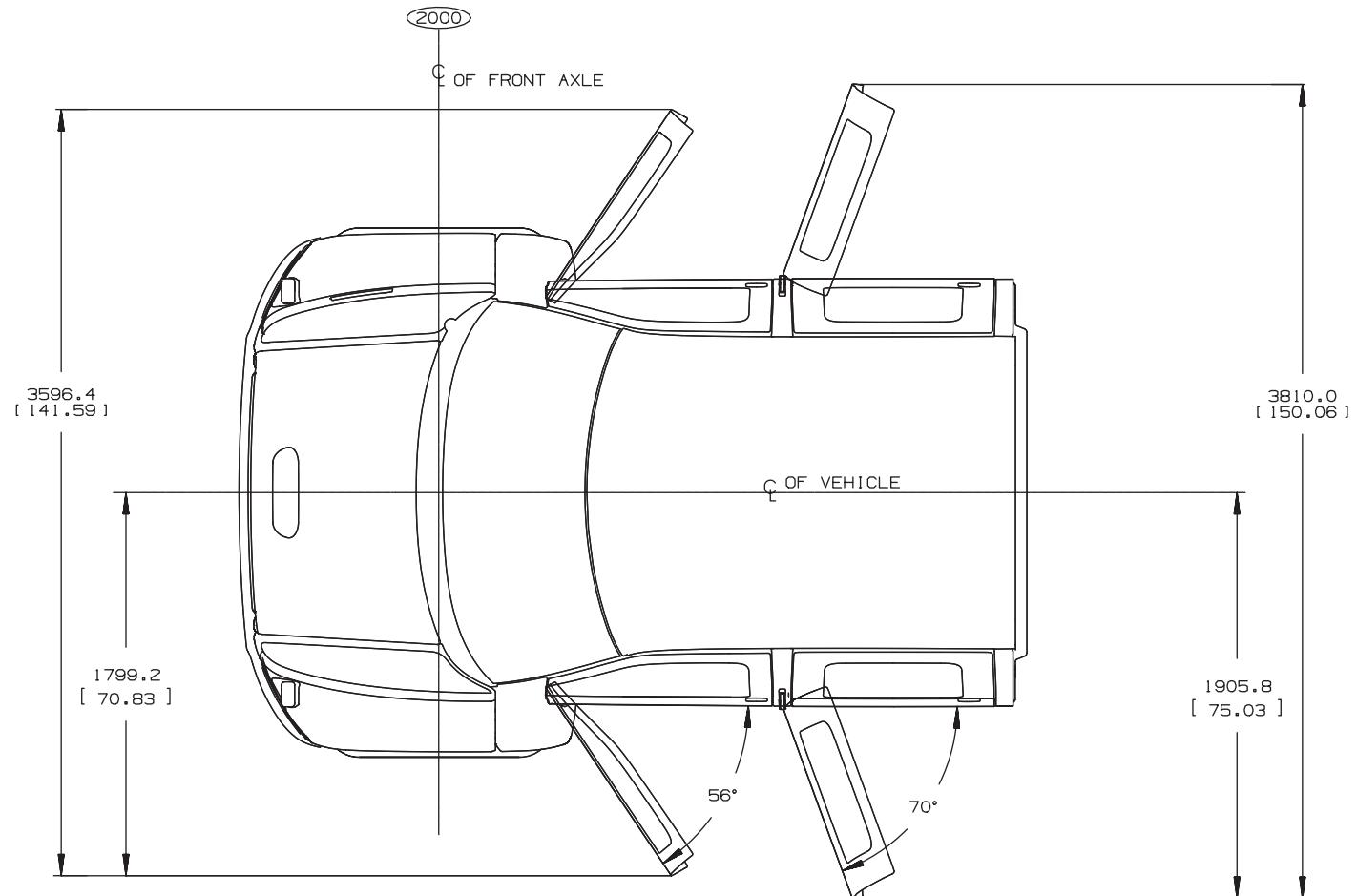
TD005860a

## C4/C5C,E,U,V042 Hood Opening and Swing



TD005847a

## C4/C5C,E,U,V042 Door Swing



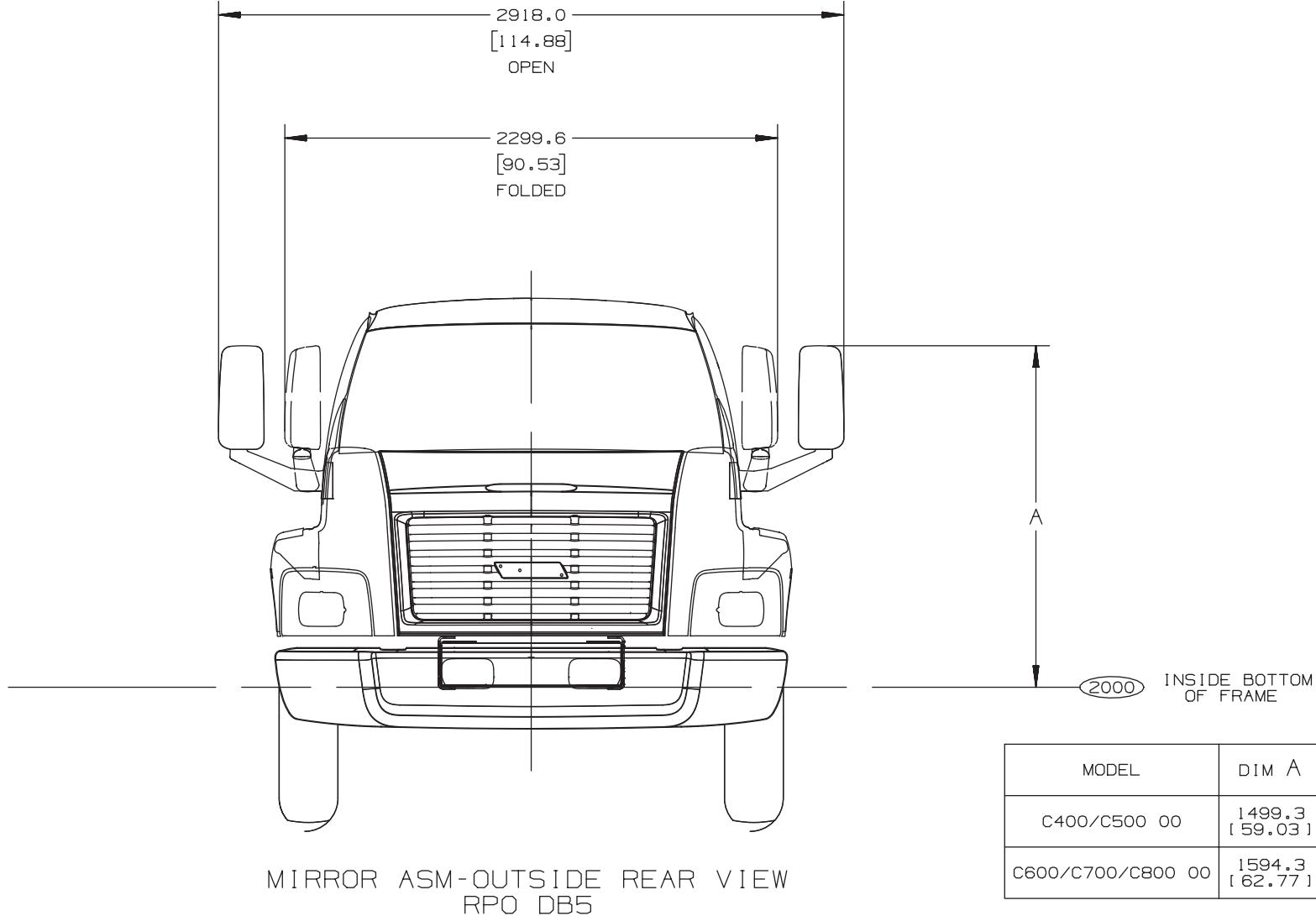
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DOOR SWING GMT 560, C/6/7/8,E042, C8C064, 2003

NOTE:  
REAR DOORS ARE FOR  
CREW CAB ONLY C8C064

**TD005850**

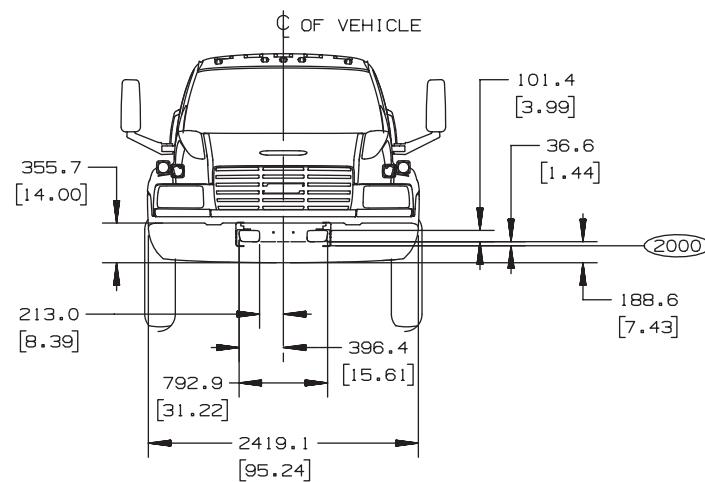
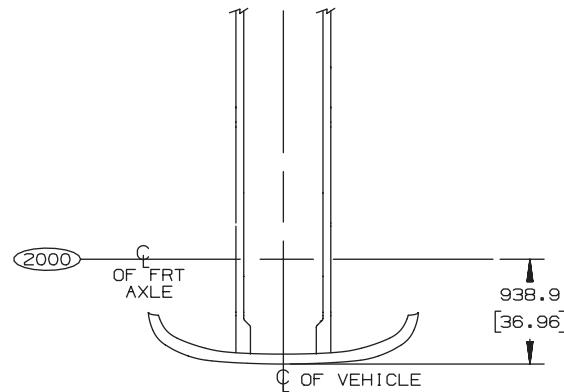
## C4/C5C,E,U,V042 Mirror



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**TD005862**

## C4/C5C,E,U,V042 Front Bumpers



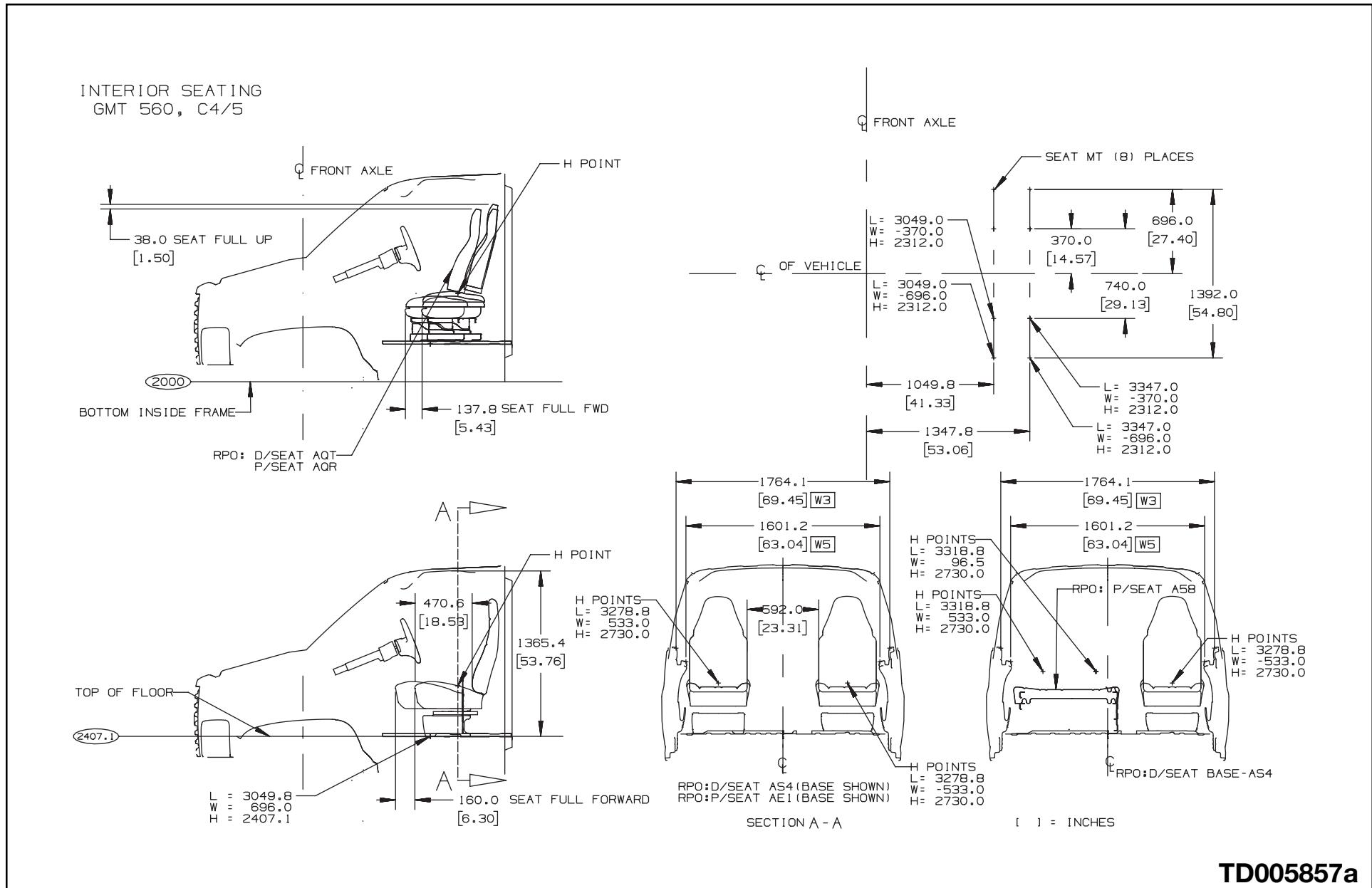
FRONT BUMPER, GMT 560, C4/5, 2003

BASE - VH6: ARGENT  
V46: CHROME

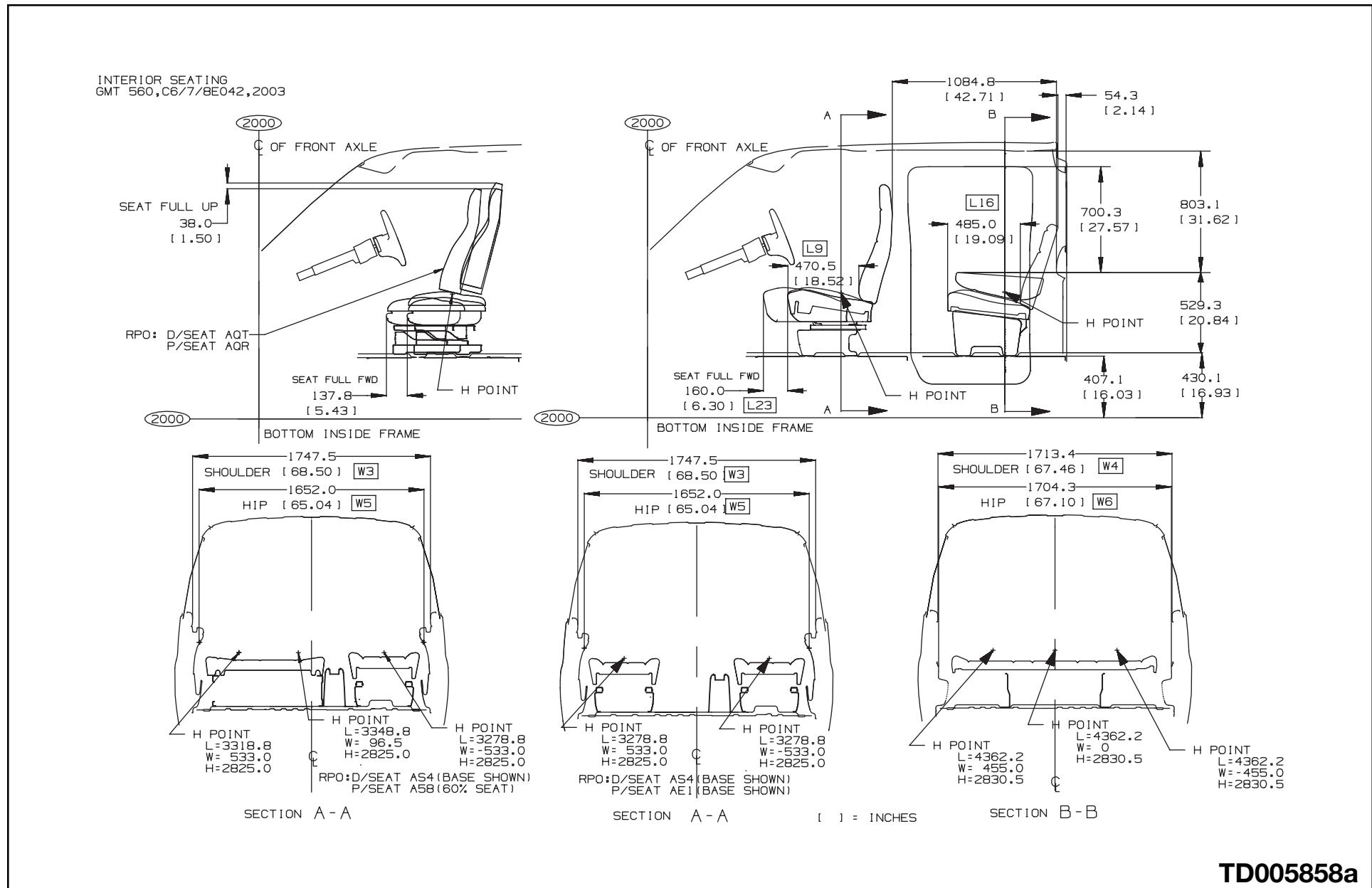
[ ] = INCHES

TD005884a

## C4/C5C,U,V042 Regular Cab Interior Seating

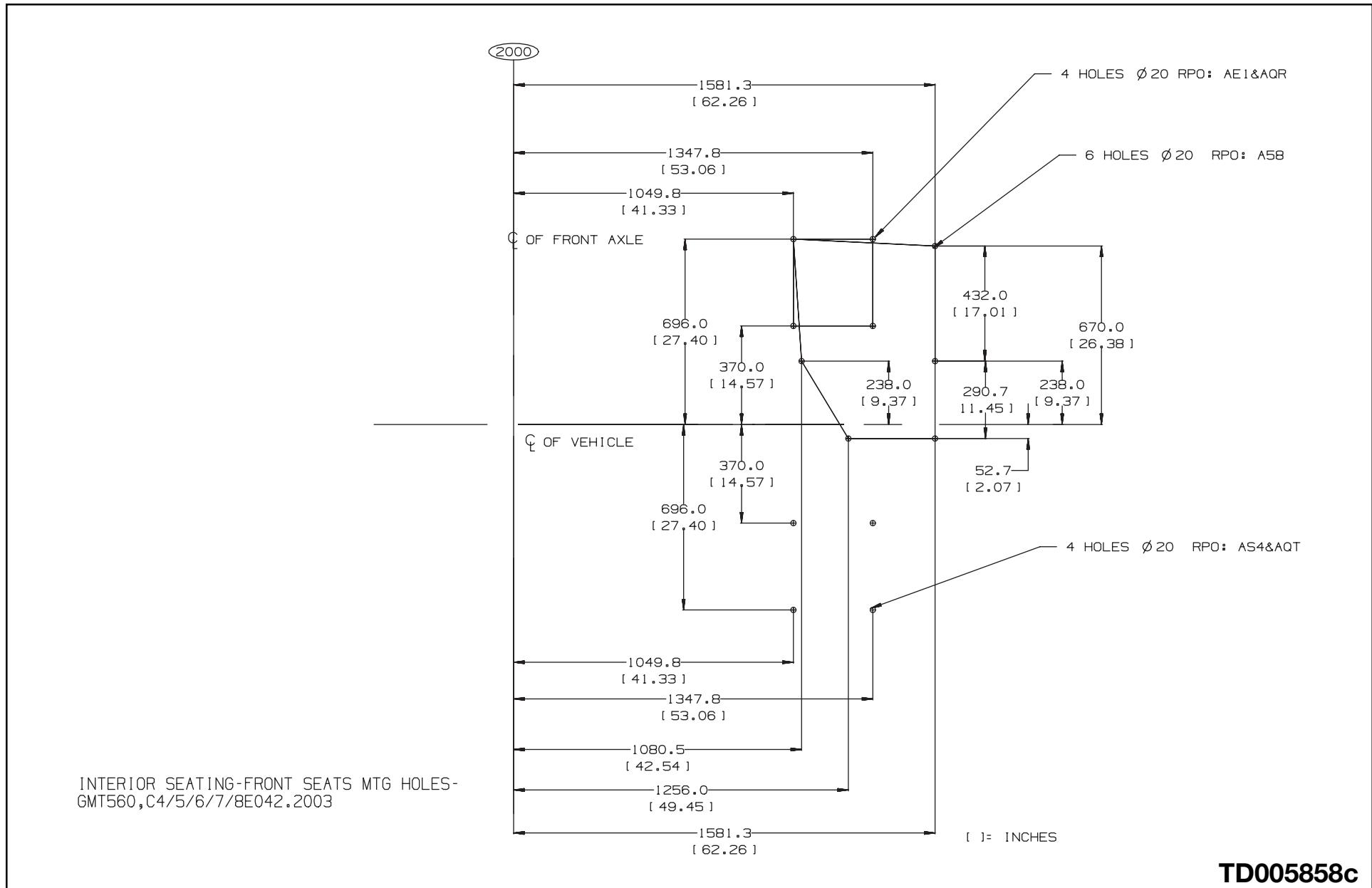


## **C4/C5E042 Crew Cab Interior Seating**

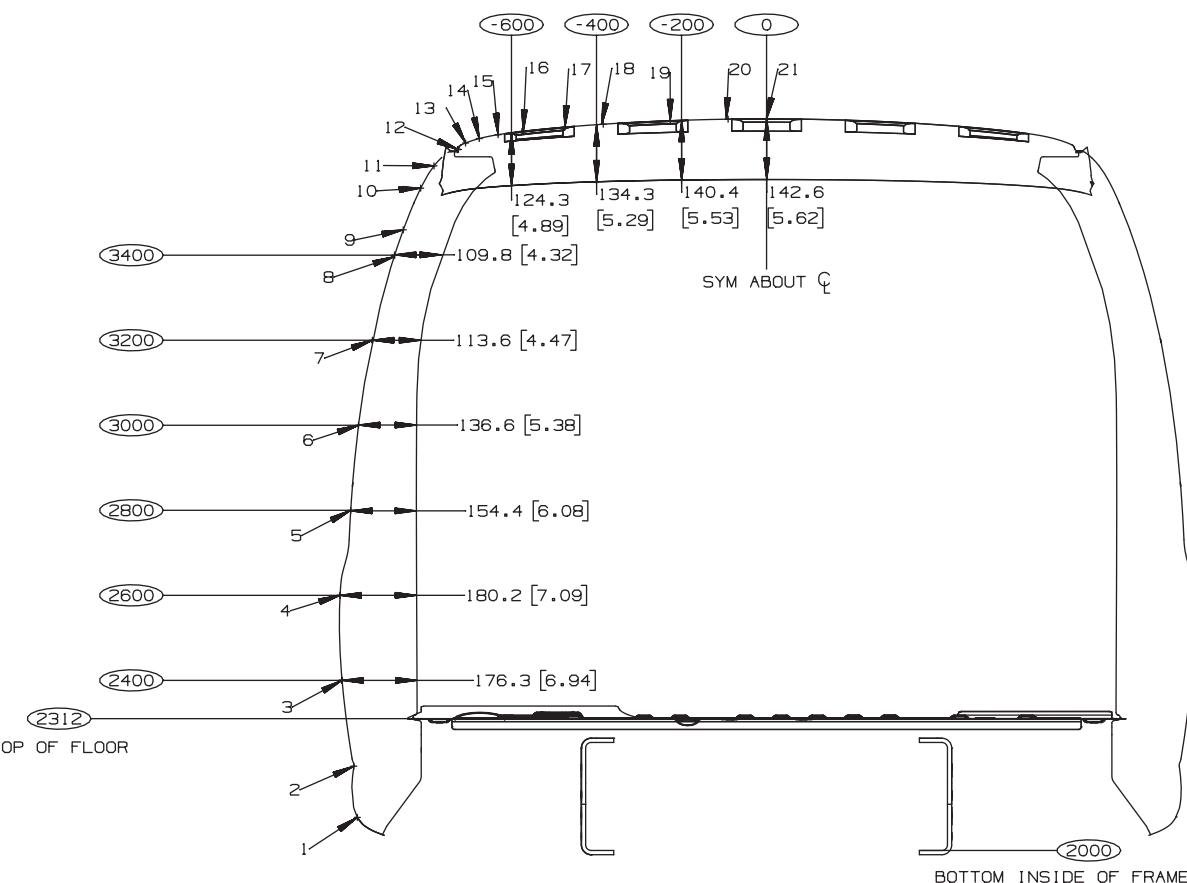


TD005858a

## C4/C5 Front Seat Mount Locations



## C4/C5U,V042 Cutaway Rear Flange



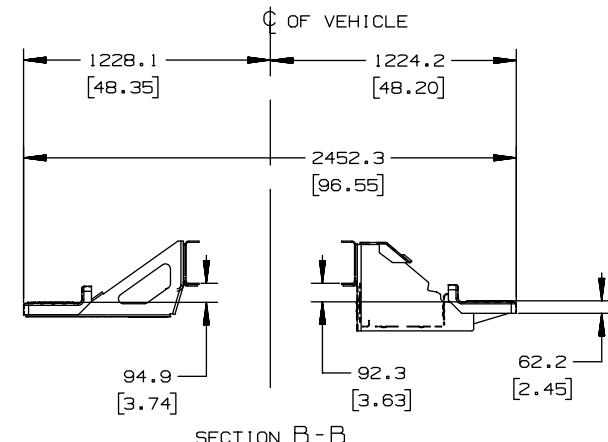
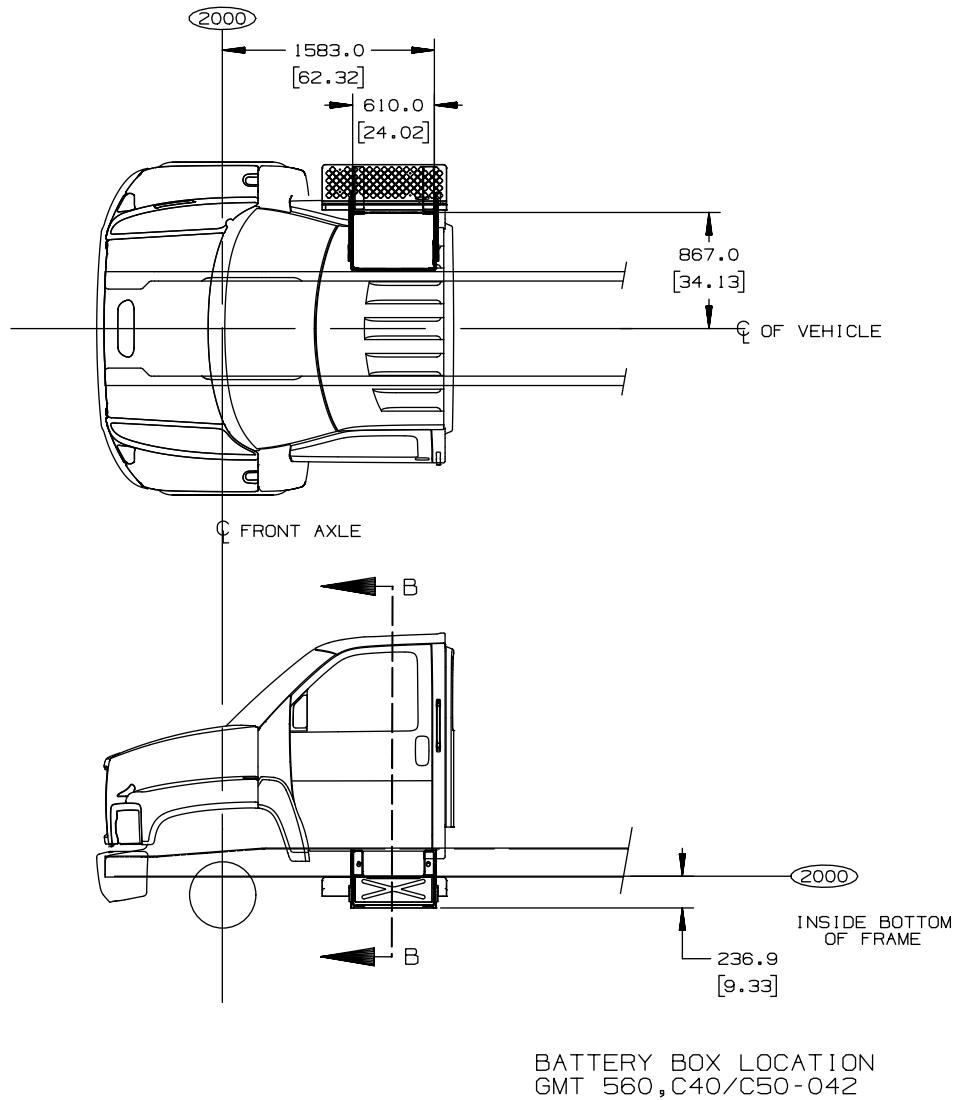
C4V042, C5V042

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2	-970.74 [-38.22]	2198.21 [86.54]	"
3	-998.52 [-39.31]	2400.00 [94.49]	"
4	-1003.23 [-39.50]	2600.00 [102.36]	"
5	-978.09 [-38.51]	2800.00 [110.24]	"
6	-959.83 [-37.79]	3000.00 [118.11]	"
7	-927.14 [-36.50]	3200.00 [125.98]	"
8	-874.92 [-34.45]	3400.00 [133.86]	"
9	-854.51 [-33.64]	3459.61 [136.20]	"
10	-813.61 [-32.03]	3557.71 [140.07]	"
11	-782.24 [-30.80]	3610.00 [142.13]	"
12	-725.58 [-28.57]	3648.64 [143.65]	"
13	-707.95 [-27.87]	3663.90 [144.25]	"
14	-675.71 [-26.60]	3674.33 [144.66]	"
15	-631.44 [-24.86]	3683.46 [145.02]	"
16	-575.43 [-22.65]	3691.01 [145.32]	"
17	-474.22 [-18.67]	3701.19 [145.72]	"
18	-384.05 [-15.12]	3708.05 [145.99]	"
19	-226.47 [-8.92]	3716.25 [146.31]	"
20	-90.43 [-3.56]	3719.90 [146.45]	"
21	0.00 [0.00]	3720.60 [146.48]	3653.12 [143.82]

TD005885a

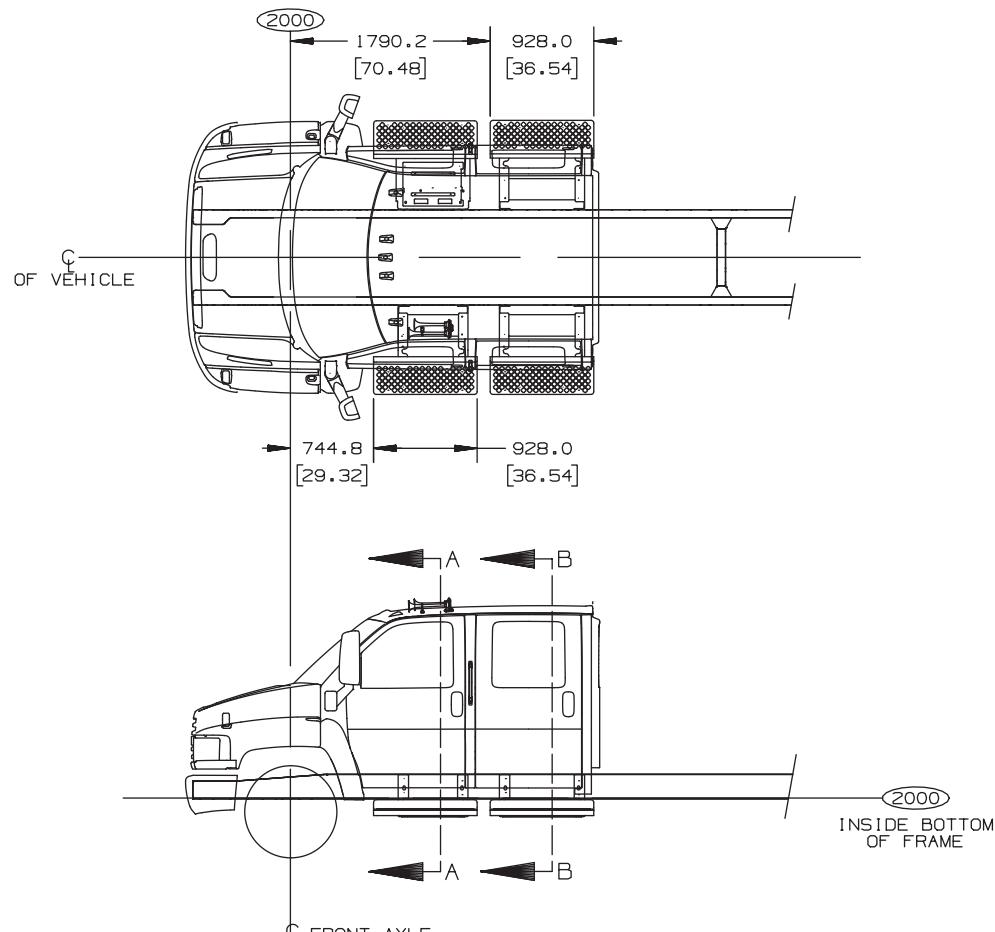
## C4/C5C,U,V042 Step and Battery Box Location



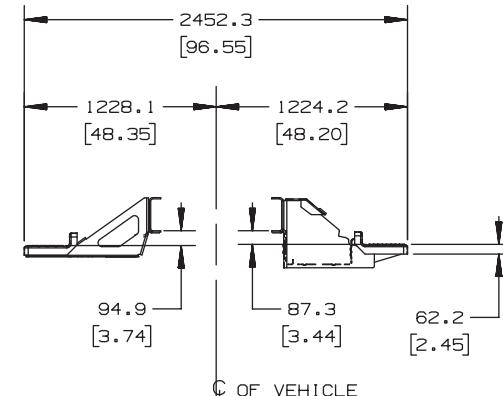
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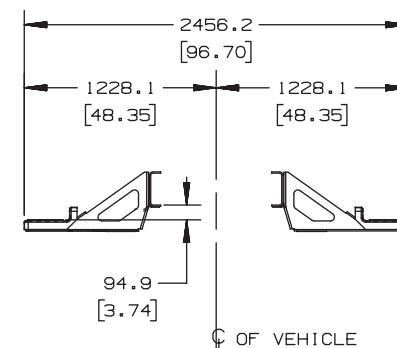
## C4/C5E042 Step Location



C4EO/C5EO 00  
STEP ASM. LOCATION



SECTION A-A



SECTION B-B

[ ] = INCHES

**TD005978**

## **Frame Hardness Specification**

- UPF (UK) Limited – Thompson Chassis purchases hot-rolled steel for GMC side rails and reinforcements which has been slit from wide coil, de-coiled to length and pickled and oiled. The steel is then stamped, to insert the hole pattern and profile, by a compound crop and pierce tool. This blank is then formed to rail section prior to being electrophoretically painted. The hot-rolled process imparts a surface texture to the steel, which is retained in the 50 and 80k psi rails.
- As you are aware, the common principle in the “Rockwell” and “Brinell” instruments used to measure hardness is the indentation of the subject surface by a hard object. The difference between the two is that the “Rockwell” instrument utilizes a diamond pyramid, whereas the “Brinell” instrument uses a tungsten carbide ball to indent the surface; and that the “Rockwell” is used on a smooth/polished surface whereas the “Brinell” is used on an uneven surface. With the above in mind, note the data measured in Brinell Hardness Numbers (BHN).
  - The 50 ksi yield material (SAE J1392 050XF) is in the 135-170 BHN range.
  - The 80 ksi yield material (SAE J1392 080XLF) is in the 217-235 BHN range.

## Frame Strength and Dimensions

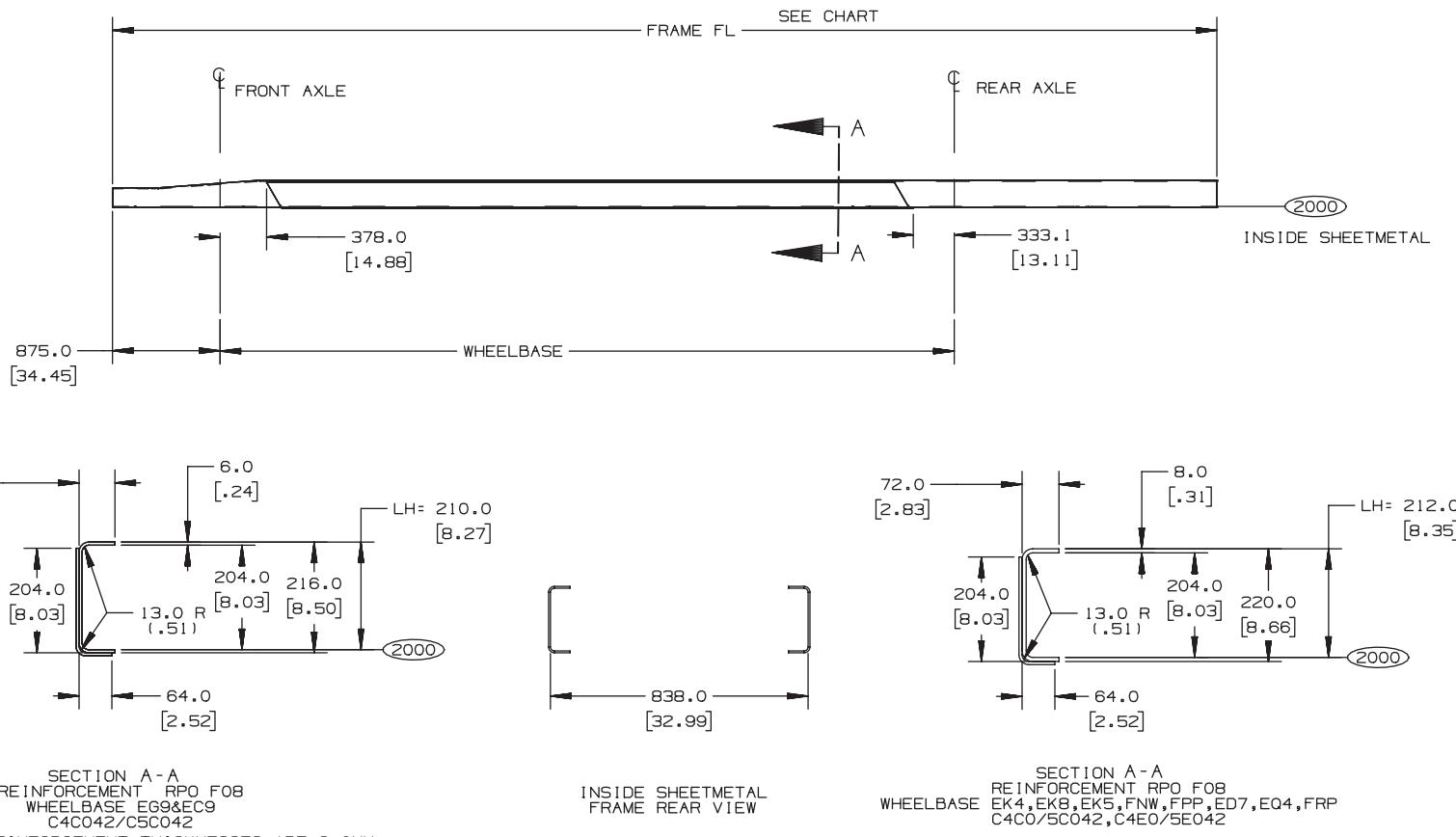
	Conv Cab Chassis (C4C/C5C) WB>152" Crew Cab Chassis (C4E/C5E)	Motorhome Cutaway Chassis (C4U/C5U) Schoolbus Cutaway Chassis (C4V/C5V & B3D) GVW<19.5K	Conv Cab Chassis (C4C/C5C) WB = 152" & 128" Commercial Cutaway (C4V/C5V)
Side Rail Material	SAE J1392 (-080 XLF)	SAE J1392 (-050 XLK / XLF)	SAE J1392 (-080 XLF)
<b>Physical Properties:</b> Minimum Tensile or Ultimate Strength (lb/in <sup>2</sup> )	95,000	60,000	95,000
Minimum Yield Strength (lbs/in <sup>2</sup> )	80,000	50,000	80,000
Minimum Elongation in 2 inches	14%	22%	14%
Weldability	Permitted	Permitted	Permitted
Resisting Bending Moment (RBM) (Rated Yield Strength x Section Modulus)	80,000* SM (see below)	50,000* SM (see below)	80,000* SM (see below)
<b>Side Rail Section</b> Outside Depth-mm (in)	220	216	216
Flange Width-mm (in)	70 (2.75)	70 (2.75)	70 (2.75)
Material Thickness-mm (in)	8mm (0.3)	6mm (0.24)	6mm (0.24)
Section Modulus (in <sup>3</sup> )	10.31	7.63	7.63
Rated RBM	824,800	381,500	610,400
<b>Optional Reinforcement</b>	F08	N/A	F08 (C4C/C5C only)
Reinforcement Type	Upright "L"		Upright "L"
Material Thickness	6mm		6mm
Combined Section	14.20		14.1
Rated Combined RBM	1,136,000		1,128,000

\*\* SECTION MODULUS BASED ON Square C-Channel. Actual parts contain radius.

### **110 Heat-Treated Versus 80K HSLA**

GM Truck is the only major OEM to offer 80K HSLA material on all C-Series. This offering is based on fatigue testing which shows equivalency to heat-treated steel. Frames fail in fatigue, not yield, and therefore the materials are equivalent with respect to service life.

## C4/C5C,E,U,V042 Frame Lengths with Reinforcements



TD005882a

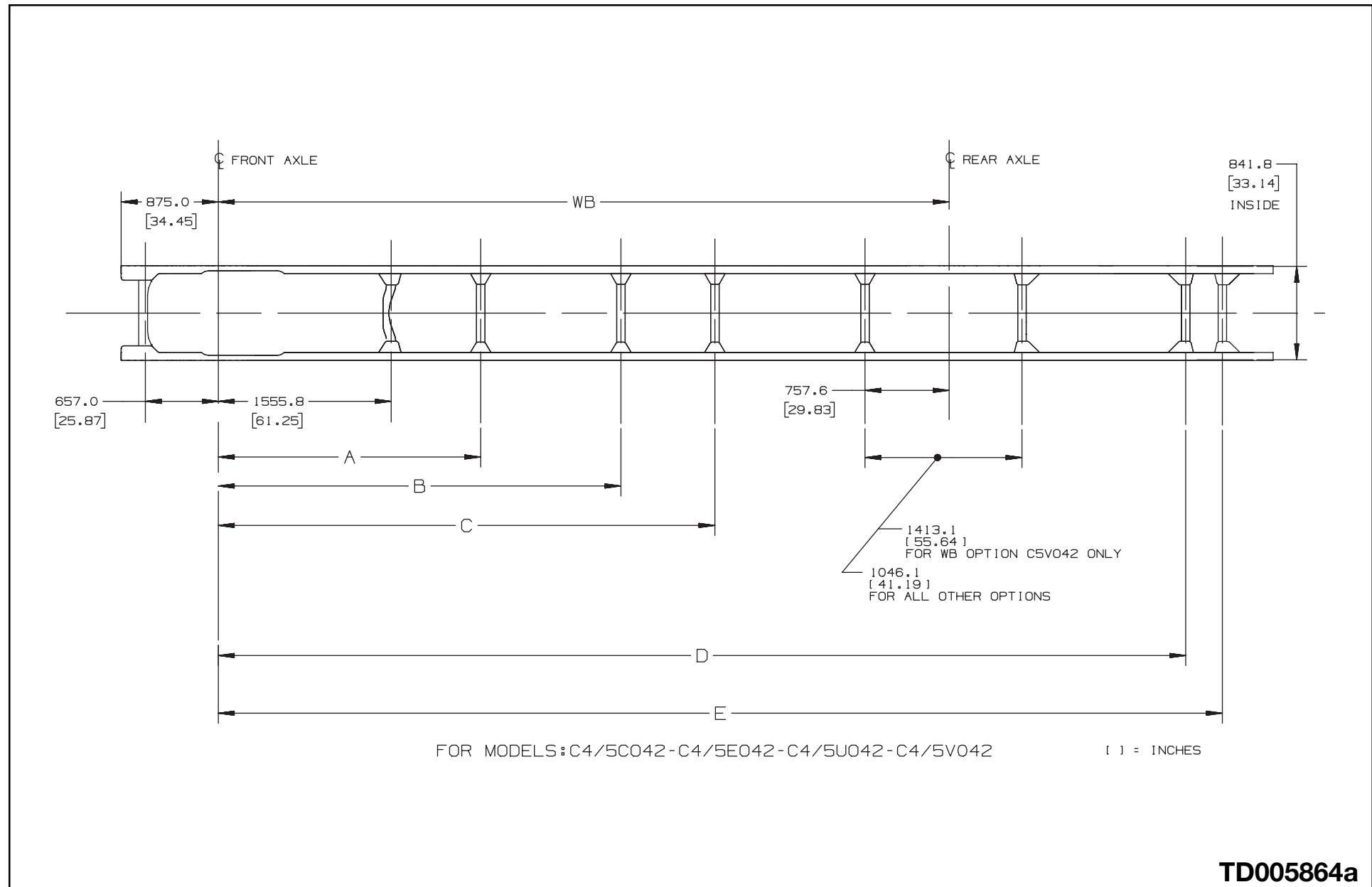
## C4/C5C,E,U,V042 Frame Lengths with Reinforcements Chart

WHEELBASE	FRAME FL							FRAME THICKNESS	FRAME REINF
	C4CO42	C4EO42	C4UO42	C4VO42	C5CO42	C5EO42	C5UO42		
EC9 128	*			*				5155.0 (202.95)	6.0 (.24)
EG9 152	*			*				6300.0 (248.03)	6.0 (.24)
FNW 176	*			*				7115.0 (280.12)	8.0 (.31)
EK8 188	*			*				7785.0 (306.50)	8.0 (.31)
EK4 194	*			*				7935.0 (312.40)	8.0 (.31)
EK5 206	*			*				8240.0 (324.41)	8.0 (.31)
FPP 169	*			*				6735.0 (265.16)	8.0 (.31)
EK4 194	*			*				7370.0 (290.16)	8.0 (.31)
ED7 217	*			*				8520.0 (335.43)	8.0 (.31)
EQ4 229	*			*				8825.0 (347.44)	8.0 (.31)
FRP 235	*			*				8979.0 (353.50)	8.0 (.31)
EC1 165.5		*		*				7210.0 (283.86)	8.0 (.31)
EC2 183.5		*		*				8050.0 (316.93)	8.0 (.31)
EC3 195.5		*		*				8785.0 (345.87)	8.0 (.31)
EC4 213.5		*		*				9245.0 (363.98)	8.0 (.31)
EC1 165.5			*		*			6875.0 (270.67)	6.0 (.24)
EC2 183.5			*		*			7665.0 (301.77)	6.0 (.24)
EC3 195.5			*		*			7970.0 (313.78)	6.0 (.24)
									—

[ ] = INCHES

TD005882b

## C4/C5C,E,U,V042 Frame and Crossmember Location



TD005864a

# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5C,E,U,V042 Frame and Crossmember Chart

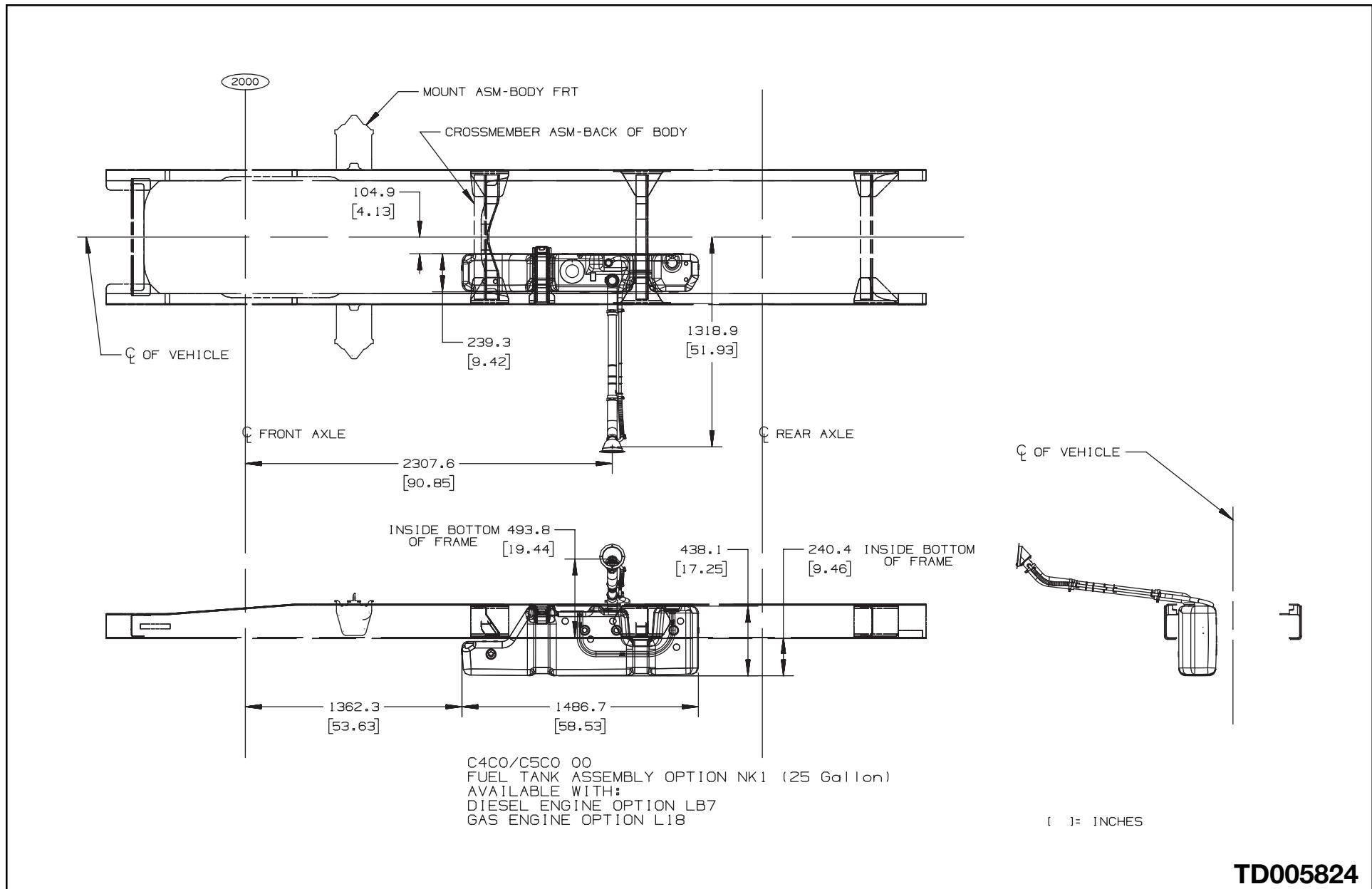
C4/5C042-C4/5E042-C4/5U042-C4/5V042 SINGLE AXLE CROSSMEMBER ARRANGEMENT CHART						
MODEL	W/B	DIM A	DIM B	DIM C	DIM D	DIM E
C4C/C5C042	EC9 3251.2 [ 128.00 ]	_____	_____	_____	4026.9 [ 158.53 ]	_____
C4C/C5C042	E69 3860.8 [ 152.00 ]	_____	_____	_____	5172.9 [ 203.66 ]	_____
C4U/C5U042	EC1 4203.7 [ 165.50 ]	2095.0 [ 82.48 ]	_____	_____	5965.9 [ 234.88 ]	_____
C4V/C5V042	EC1 4203.7 [ 165.50 ]	2095.0 [ 82.48 ]	_____	_____	5515.9 [ 217.16 ]	_____
C4E/C5E042	FPP 4292.6 [ 169.00 ]	2184.0 [ 85.98 ]	2599.8 [ 102.35 ]	_____	5604.9 [ 220.67 ]	_____
C4C/C5C042	FNW 4470.4 [ 176.00 ]	2362.0 [ 92.99 ]	_____	_____	5782.9 [ 227.68 ]	_____
C4U/C5U042	EC2 4660.9 [ 183.50 ]	2552.0 [ 100.47 ]	_____	_____	6422.9 [ 252.87 ]	6753.0 [ 265.86 ]
C4V/C5V042	EC2 4660.9 [ 183.50 ]	2552.0 [ 100.47 ]	_____	_____	5972.9 [ 235.18 ]	_____
C4C/C5C042	EK8 4775.2 [ 188.00 ]	2667.0 [ 105.00 ]	_____	_____	6087.9 [ 239.88 ]	6418.1 [ 252.68 ]
C4C/C5C042	EK4 4927.6 [ 194.00 ]	1827.0 [ 71.93 ]	2819.0 [ 110.98 ]	_____	6239.9 [ 245.67 ]	6570.1 [ 258.66 ]
C4E/C5E042	EK4 4927.6 [ 194.00 ]	1827.0 [ 71.93 ]	2599.3 [ 102.34 ]	2894.0 [ 113.93 ]	6239.9 [ 245.67 ]	_____
C4U/C5U042	EC3 4985.7 [ 195.50 ]	1827.0 [ 71.93 ]	2857.0 [ 112.48 ]	_____	6727.9 [ 284.88 ]	7441.1 [ 292.85 ]
C4V/C5V042	EC3 4985.7 [ 195.50 ]	1827.0 [ 71.93 ]	2857.0 [ 112.48 ]	_____	6277.9 [ 247.18 ]	_____
C4C/C5C042	EK5 5232.4 [ 206.00 ]	1827.0 [ 71.93 ]	3124.0 [ 122.99 ]	_____	6544.9 [ 257.68 ]	6875.1 [ 270.87 ]
C4U/C5U042	EC4 5422.9 [ 213.50 ]	1827.0 [ 71.93 ]	3314.0 [ 130.47 ]	_____	7184.9 [ 282.87 ]	7898.1 [ 310.95 ]
C4E/C5E042	ED7 5511.8 [ 217.00 ]	2362.0 [ 92.99 ]	2599.3 [ 102.34 ]	3403.0 [ 133.98 ]	6823.9 [ 268.66 ]	_____
C5V042	EQE 5588.0 [ 220.00 ]	2362.0 [ 92.99 ]	3479.0 [ 136.97 ]	_____	7716.9 [ 303.82 ]	_____
C4E/C5E042	EQ4 5816.6 [ 229.00 ]	2362.0 [ 92.99 ]	2599.5 [ 102.34 ]	3708.0 [ 145.98 ]	7128.9 [ 280.67 ]	_____
C5V042	EQ8 5918.2 [ 233.00 ]	2362.0 [ 92.99 ]	3086.0 [ 121.50 ]	3810.0 [ 150.00 ]	8047.9 [ 316.85 ]	_____
C4E/C5E042	FRP 5969.0 [ 235.00 ]	2362.0 [ 92.99 ]	2599.3 [ 102.34 ]	3860.0 [ 151.97 ]	7280.9 [ 288.65 ]	_____
C5V042	EQ1 6248.4 [ 246.00 ]	2362.0 [ 92.99 ]	3624.0 [ 142.68 ]	4140.0 [ 162.99 ]	8376.2 [ 329.77 ]	_____
C5V042	ET7 6578.6 [ 259.00 ]	2362.0 [ 92.99 ]	3624.0 [ 142.68 ]	4470.0 [ 175.98 ]	8707.9 [ 342.83 ]	_____

[ ] = INCHES

GMT560,  
CROSSMEMBER CHART

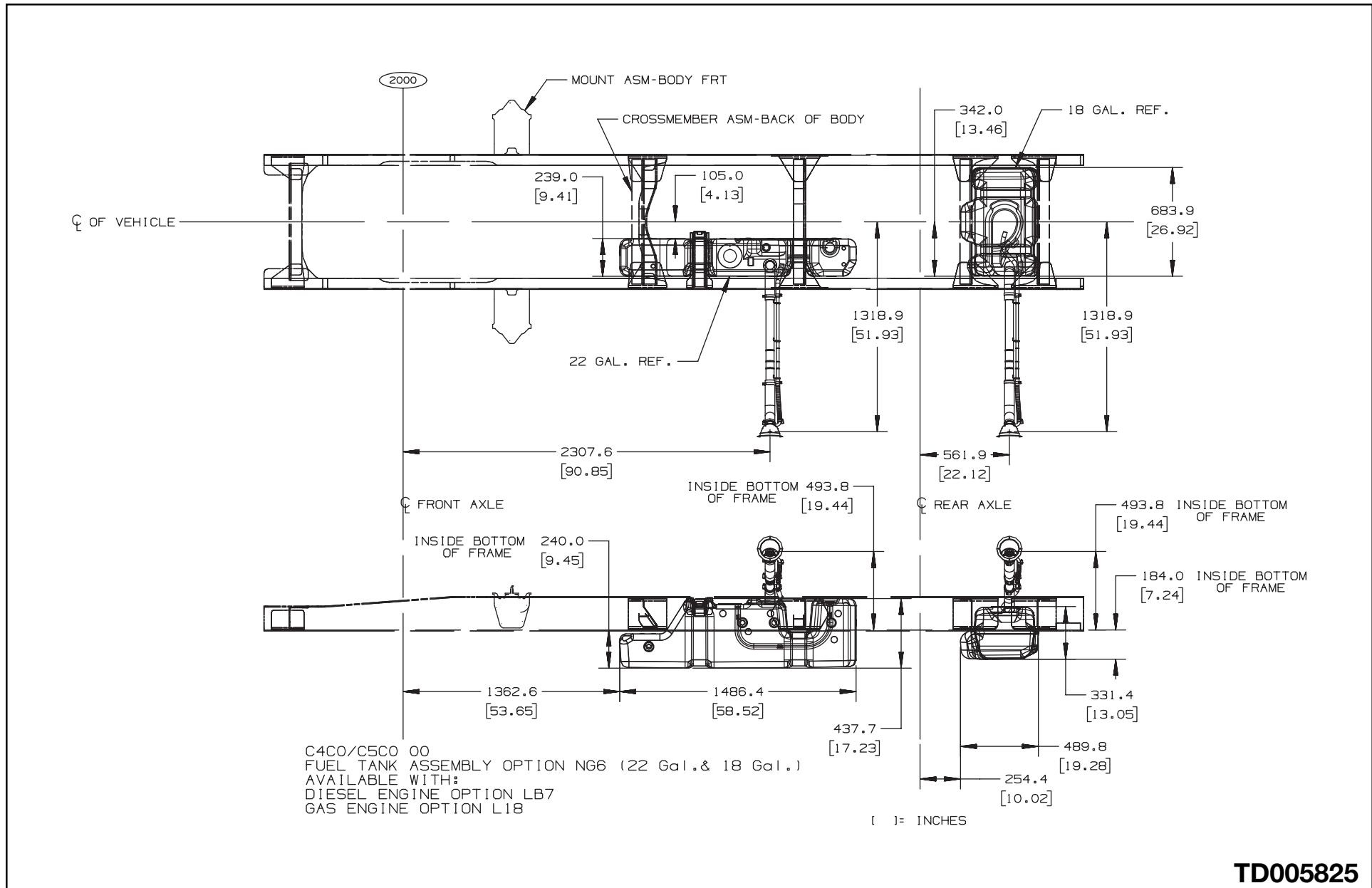
TD005864b

## C4/C5C,E,U,V042 25 Gallon Fuel Tank Option NK1



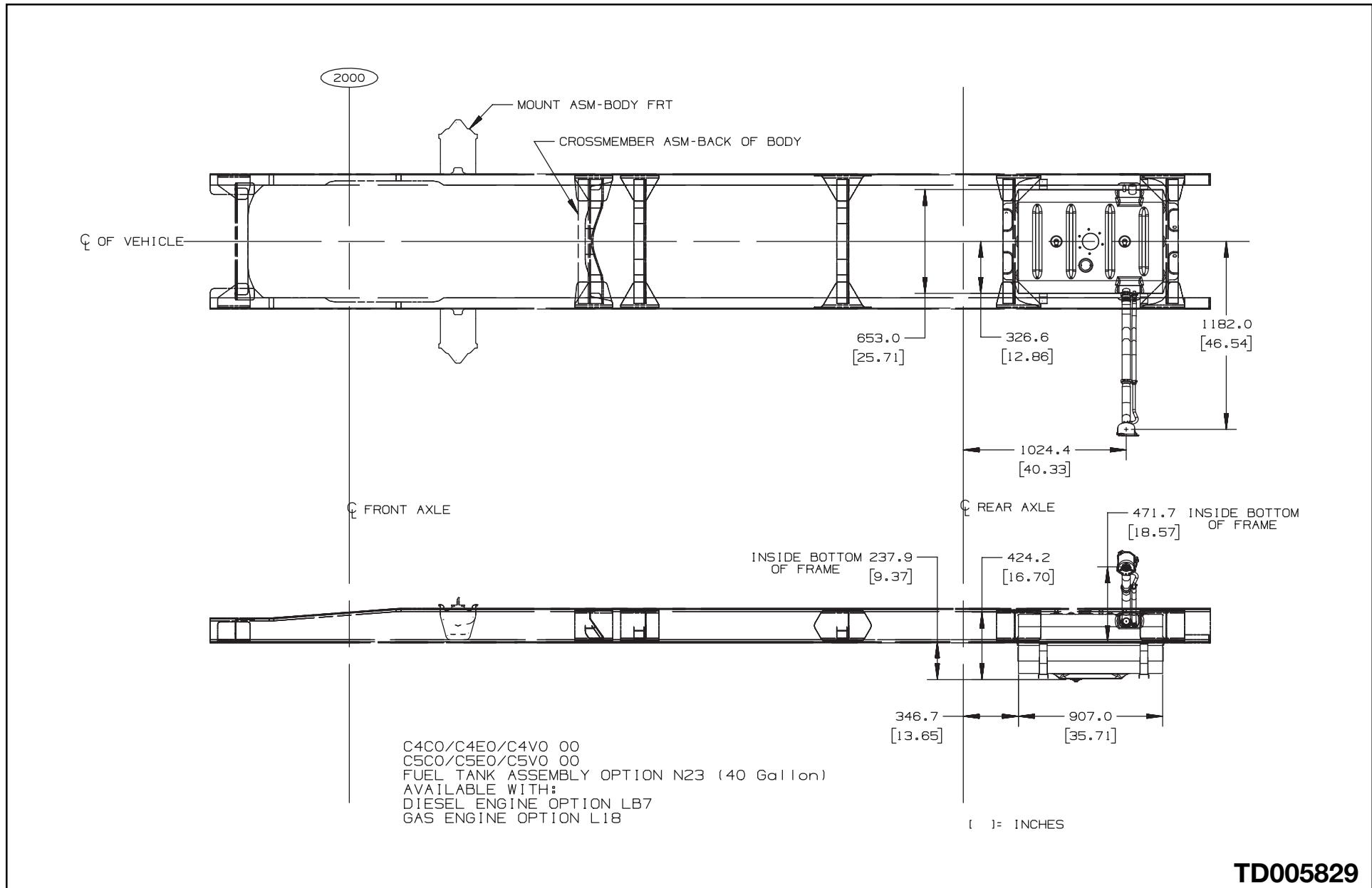
TD005824

## C4/C5C,E042 22 & 18 Gallon Fuel Tank Option NG6



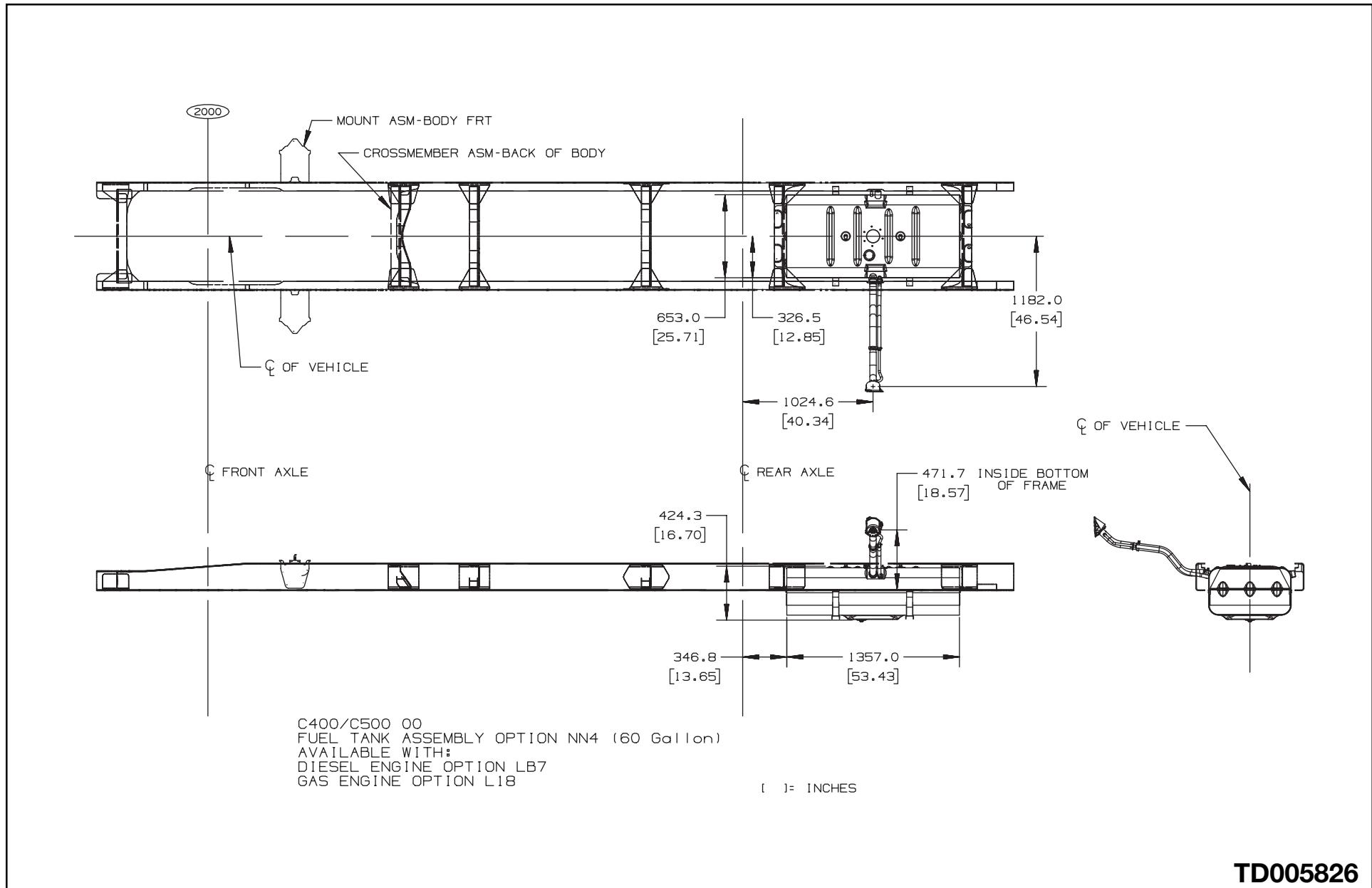
TD005825

## C4/C5C,E,V042 40 Gallon Fuel Tank Option N23



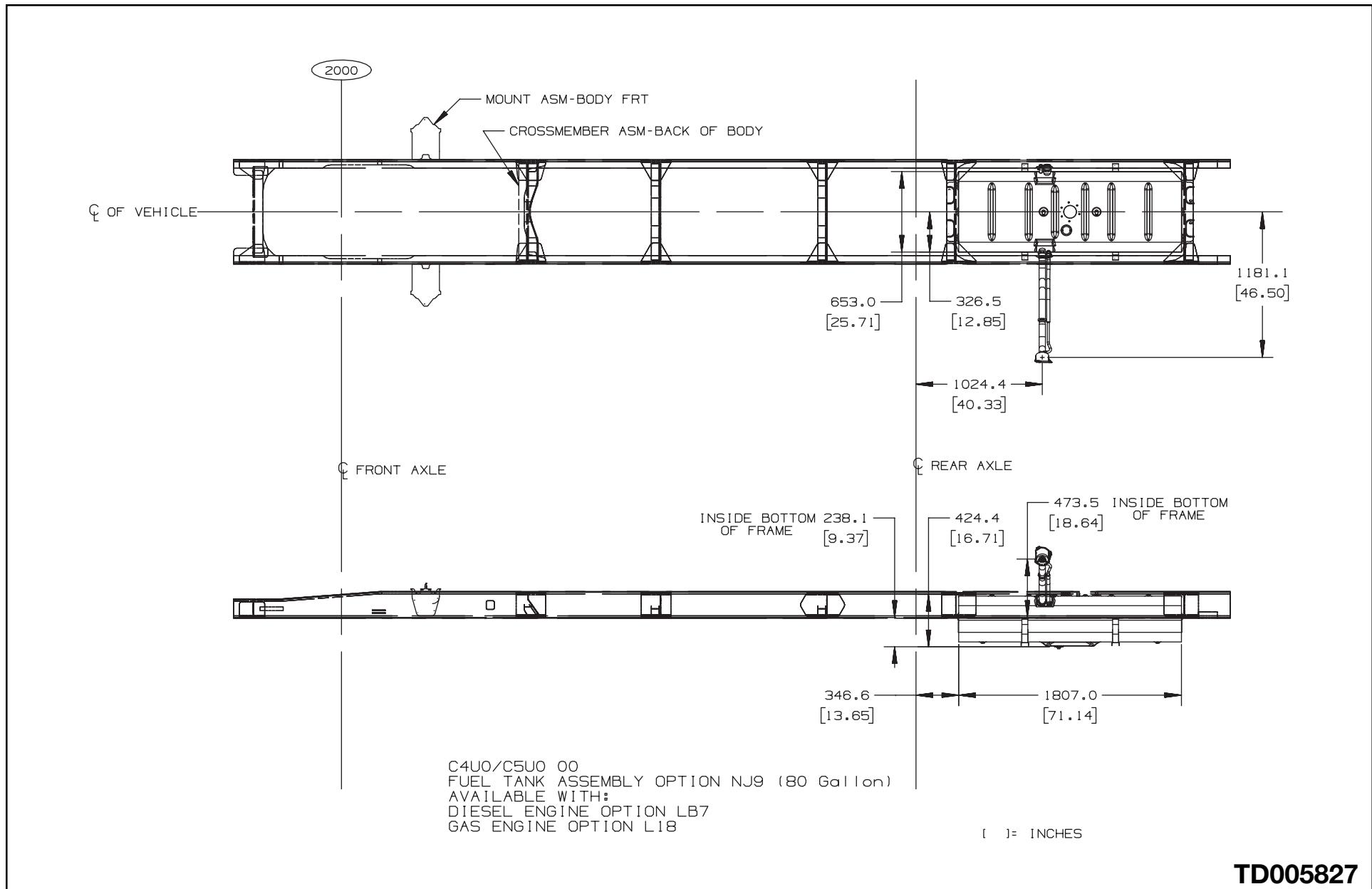
TD005829

## C4/C5C,E,U,V042 60 Gallon Fuel Tank Option NN4



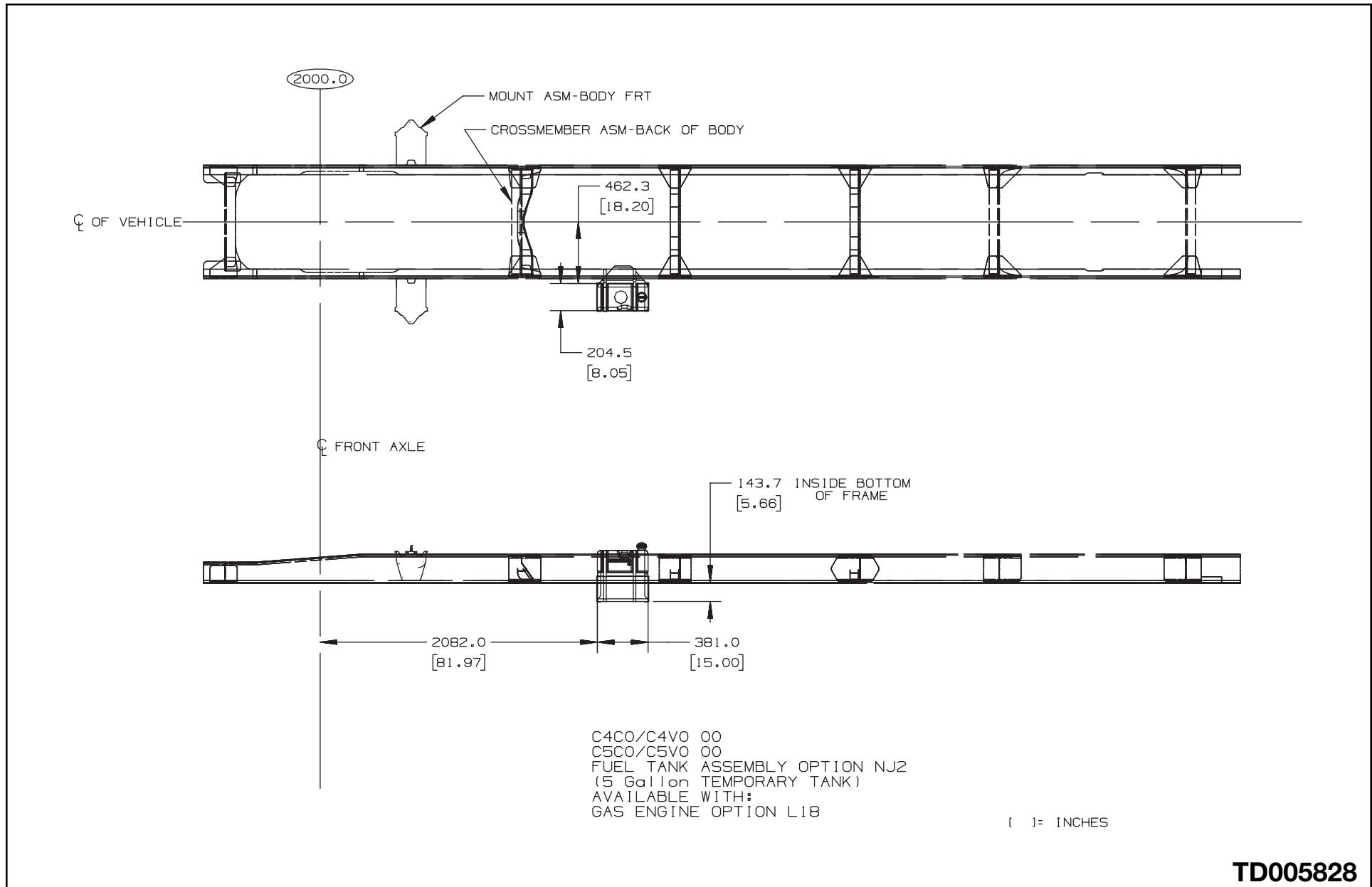
TD005826

## C4/C5U042 80 Gallon Fuel Tank Option NJ9



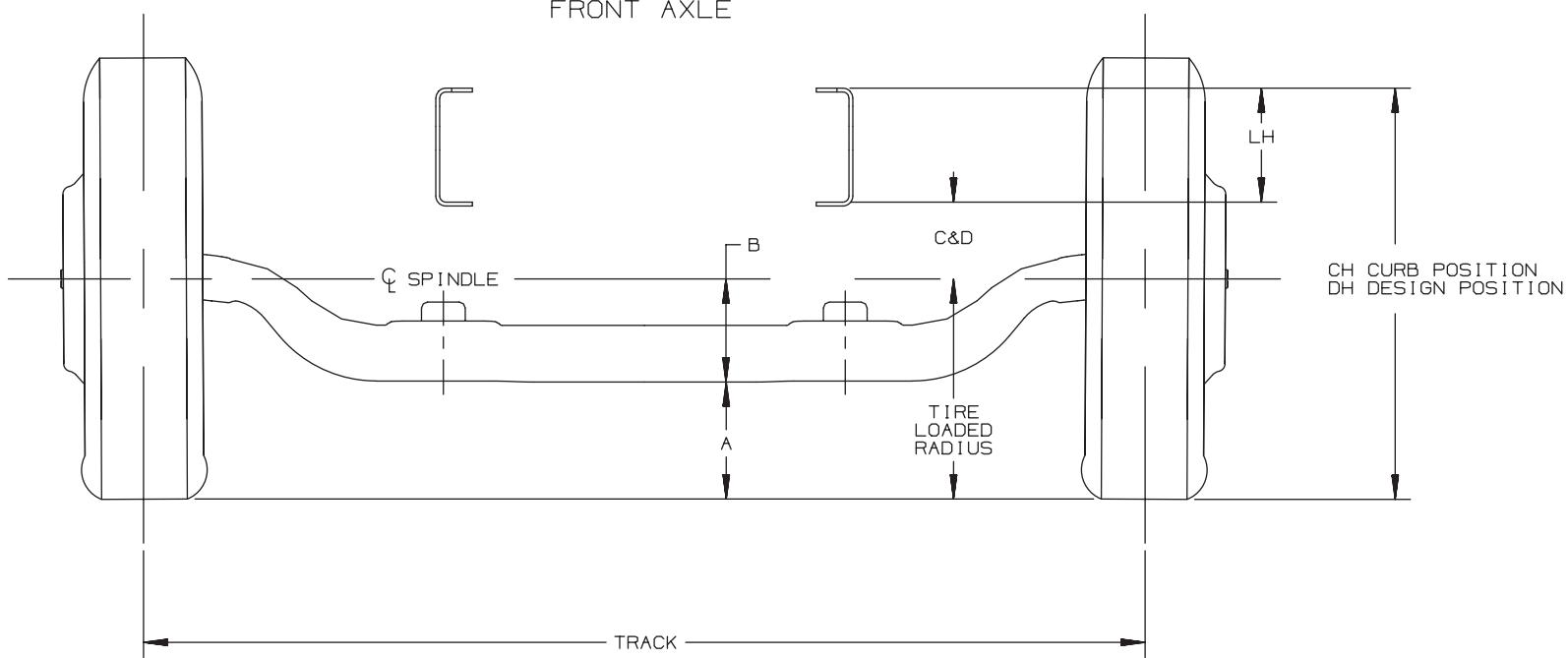
TD005827

## C4/C5C,V042 5 Gallon Temporary Fuel Tank Option NJ2



TD005828

## C4/C5C,E,U,V042 Front Axle



**LEGEND:**

- A = TIRE LOADED RADUIS - B
- B = CENTERLINE OF AXLE TO BOTTOM OF BEAM
- C = CENTERLINE OF AXLE TO BOTTOM INSIDE OF RAIL AT CURB POSITION
- D = CENTERLINE OF AXLE TO BOTTOM INSIDE OF RAIL AT DESIGN LOAD
- CH = C + TIRE LOADED RADIUS + LH
- DH = D + TIRE LOADED RADIUS + LH
- LH = INSIDE BOTTOM OF FRAME TO TOP OF FRAME  
SEE FRAME DRAWING TD005882
- TRACK = WHEEL OFFSET AT SPINDLE  
TRACK AT GROUND WILL VARY WITH CAMBER ANGLE AND TIRE/WHEEL COMBINATION

FOR: GMT 560, C4/5C,E,U,V042, C6/7/8C,E,V042, C8C,E,V064 2003

[ ] = INCHES

**TD005869a**

# **2003 MEDIUM DUTY C SERIES – FAMILY 2**

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## **C4/C5C,E,U,V042 Front Axle Track Width Chart**

FRONT AXLE TRACK WIDTH						
				AXLE & BRAKE RPO		
				FN9	FM7	FM8
WHEEL TYPE	WHEEL RPO	WHEEL SIZE ( IN INCHES )	WHEEL OFFSET	JE3 ( HYD )	JE3	JE3
DISC	Q91	19.50 X 6.00	127.0 [ 5.00 ]	TBD	TBD	TBD
DISC	Q82	19.50 X 6.75	142.2 [ 5.60 ]	2047.0 [ 80.59 ]	2033.1 [ 80.04 ]	2094.3 [ 82.45 ]
DISC	RPM	19.50 X 6.75	141.0 [ 5.55 ]	2024.7 [ 79.71 ]	2055.4 [ 80.92 ]	2116.8 [ 83.34 ]

FOR : GMT 560, C4/5C, E, U, V042, 2003

[ ] = INCHES

**TD005869b**

## C4/C5C,E,U,V042 Front Axle / Suspension Chart

### FRONT AXLE SUSPENSION DIMENSIONS

SUSPENSION RPO	AXLE RPO	-								-B-	-C-		-D-	
		C4C042	C4E042	C4U042	C4V042	C5C042	C5E042	C5U042	C5V042		BASE	W/F59*	BASE	W/F59*
FK7 6,000 LB 2,725 KG I-BEAM	FN9 6,000 LB 2,722 KG	*	*	*	*	*	*	*	*	175.3 [ 6.97 ]	—	172.1 [ 6.78 ]	—	122.8 [ 4.83 ]
	FM7 7,000 LB 3,175 KG	*	*	*	*					210.2 [ 8.28 ]	—	172.1 [ 6.78 ]	—	122.8 [ 4.83 ]
FK6 7,000 LB 3,175 KG I-BEAM	FN9 6,000 LB 2,722 KG	*	*	*	*	*	*	*	*	175.3 [ 6.97 ]	—	TBD	—	TBD
	FM7 7,000 LB 3,175 KG	*	*	*	*	*	*	*	*	210.2 [ 8.28 ]	—	182.1 [ 7.17 ]	—	120.1 [ 4.73 ]
FSN 8,000 LB 3,629 KG TAPERED LEAF	FM8 8,000 LB 3,639 KG							*		210.2 [ 8.28 ]	—	207.1 [ 8.15 ]	—	136.6 [ 5.38 ]

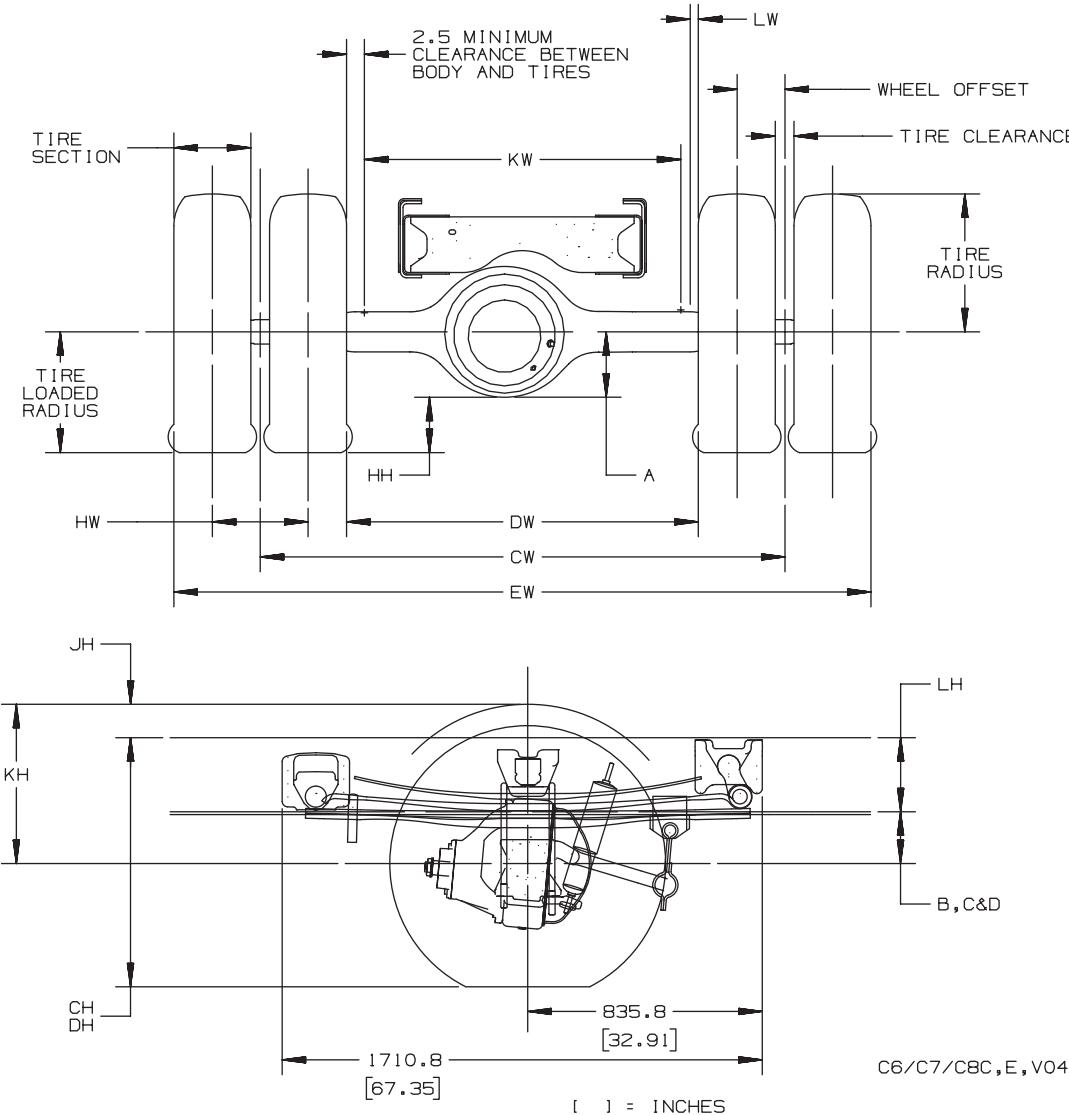
\*F59 = STABILIZER SHAFT FRONT

FOR: GMT 560, C4/5C,E,U,V042, 2003

[ ] = INCHES

TD005869c

## C4/C5C,E,U,V042 Rear Axle



TD005870a

## C4/C5C,E,U,V042 Rear Axle Chart Formula

### DEFINITIONS:

- A - CENTERLINE OF AXLE TO BOTTOM OF AXLE BOWL  
B - CENTERLINE OF AXLE TO BOTTOM INSIDE RAIL AT INFINITE BUMP  
C - CENTERLINE OF AXLE TO BOTTOM INSIDE RAIL AT CURB POSITION  
D - CENTERLINE OF AXLE TO BOTTOM INSIDE RAIL AT DESIGN LOAD  
CH - REAR FRAME HEIGHT  
DISTANCE BETWEEN THE TOP OUTSIDE RAIL AND THE GROUND-LINE THROUGH THE VERTICAL CENTERLINE OF THE REAR AXLE AT CURB POSITION  
DH - REAR FRAME HEIGHT DISTANCE BETWEEN THE TOP OUTSIDE RAIL AND THE GROUND-LINE  
THROUGH THE VERTICAL CENTERLINE OF THE REAR AXLE AT DESIGN POSITION  
HH - REAR AXLE CLEARANCE  
MINIMUM CLEARANCE BETWEEN THE REAR AXLE AND THE GROUND-LINE  
JH - REAR TIRE CLEARANCE  
MINIMUM CLEARANCE REQUIRED FOR TIRES AND CHAINS MEASURED FROM THE  
TOP OF THE FRAME AT THE VERTICAL CENTERLINE OF THE REAR AXLE  
KH - CHAIN CLEARANCE  
LH - DISTANCE FROM THE BOTTOM INSIDE RAIL TO THE TOP OF THE RAIL  
CW - TRACK DUAL WHEEL VEHICLES  
DISTANCE BETWEEN THE CENTERLINES OF THE DUAL WHEELS AS MEASURED AT THE GROUND-LINE  
DW - MINIMUM DISTANCE BETWEEN THE INNER SURFACES OF THE REAR TIRES  
EW - MAXIMUM REAR WIDTH  
OVER-ALL WIDTH OF VEHICLE MEASURED AT THE OUTER MOST SURFACE OF THE REAR TIRES  
HW - DUAL TIRE SPACING  
DISTANCE BETWEEN THE CENTERLINES OF THE TIRES IN A SET OF DUAL TIRES  
KW - REAR BODY WIDTH  
MAXIMUM BODY WIDTH BETWEEN REAR TIRES

SEE TIRE CHART FOR VALUES: TIRE SELECTION, TIRE RADIUS  
TIRE LOADED RADIUS AND TIRE CLEARANCE

### FORMULAS FOR CALCULATING REAR WIDTH AND HEIGHT DIMENSIONS:

- CH = TIRE LOADED RADIUS + C + LH  
DH = TIRE LOADED RADIUS + D + LH  
HH = TIRE LOADED RADIUS - A  
JH = KH - B - LH  
KH = TIRE RADIUS + 3.00 INCHES  
CW = TRACK  
DW = TRACK - 1 TIRE SECTION - HW  
EW = TRACK + 1 TIRES SECTION + HW  
KW = DW - 5.00 INCHES  
LW = 1.00 INCHES MINIMUM CLEARANCE BETWEEN TIRES AND SPRINGS

NOTE: TRACK AND OVERALL WIDTH MAY VARY WITH OPTIONAL EQUIPMENT

**TD005870b**

# 2003 MEDIUM DUTY C SERIES – FAMILY 2

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## C4/C5C,E,U,V042 Rear Axle Suspension and Track Chart

### REAR AXLE SUSPENSION DIMENSIONS

SUSPENSION RPO	AXLE RPO	VEHICLE MODELS							- A -	BASE	- B -	W/G60	BASE	- C -	W/G60	BASE	- D -	W/G60
		C4C042	C4E042	C4V042	C4U042	C5F042	C5T042	C5U042			BASE			BASE				
GR2 11,000 LB TAPERED LEAF	GL4 11,000 LB	*	*	*	*				174.94 [ 6.89 ]	80.2 [ 3.16 ]	N/A	223.2 [ 8.79 ]	N/A	158.3 [ 6.23 ]	N/A			
		*	*	*						88.1 [ 3.47 ]	N/A	223.8 [ 8.81 ]	N/A	153.5 [ 6.04 ]	N/A			
GR4 13,500 LB MULTILEAF	GL8 13,500 LB				*	*	*		214.38 [ 8.44 ]	102.9 [ 4.05 ]	N/A	219.1 [ 8.63 ]	N/A	162.8 [ 6.41 ]	N/A			
					*	*	*	*		79.2 [ 3.12 ]	N/A	234.1 [ 9.22 ]	N/A	163.3 [ 6.43 ]	N/A			
GQ0 15,000 LB TAPERED LEAF	H08 15,000 LB DANA S150S SINGLE SPEED					*			214.38 [ 8.44 ]	71.6 [ 2.81 ]	N/A	276.8 [ 10.89 ]	N/A	168.0 [ 6.61 ]	N/A			
GQ2 15,000 LB	GL8 13,500 LB	*		*	*	*	*		214.38 [ 8.44 ]	103.7 [ 4.08 ]	N/A	226.1 [ 8.90 ]	N/A	182.7 [ 7.19 ]	N/A			
GG9 17,000 LB TAPERED LEAF	HPK 19,000 LB EATON 1906OS SINGLE SPEED					*			229.37 [ 9.03 ]	79.7 [ 3.14 ]	N/A	288.0 [ 11.34 ]	N/A	179.9 [ 7.08 ]	N/A			
						*				77.0 [ 3.03 ]	N/A	288.8 [ 11.37 ]	N/A	178.4 [ 7.02 ]	N/A			

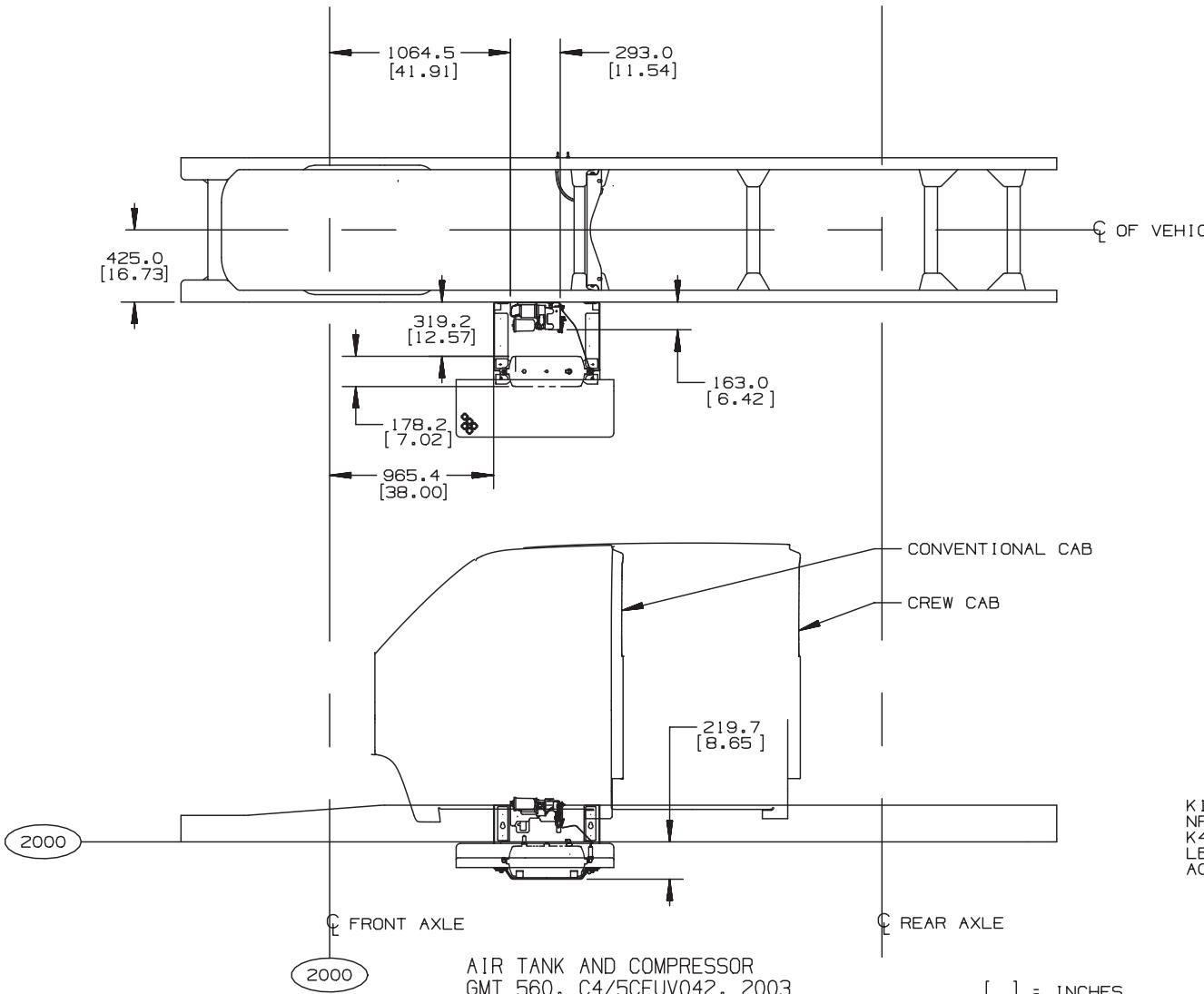
### TRACK DIMENSIONS

ENGINEERING MODEL	BRAKE	AXLE RPO	TRACK
4C4E4U4V042	JE3	GL4 11,000 LB	1854.2 [ 73.0 ]
		GL8 13,500 LB	1854.2 [ 73.0 ]
		H08 15,000 LB DANA S150S SINGLE SPEED	2063.6 [ 81.24 ]
		HPK 19,000 LB EATON 1906OS SINGLE SPEED	2091.8 [ 82.35 ]

[ ] = INCHES

TD005870c

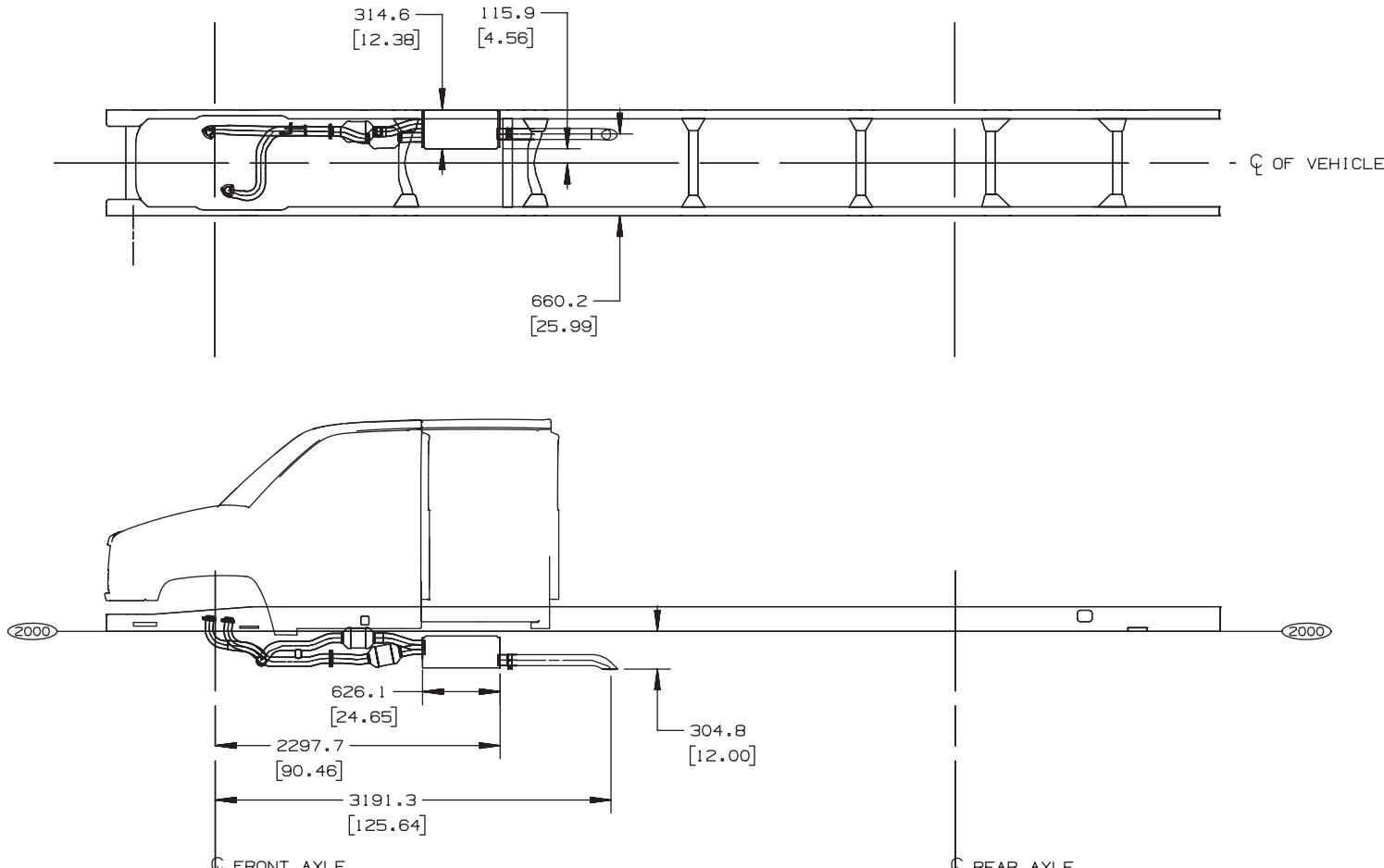
## C4/C5C,E,U,V042 Air Tanks and Compressor



K16 - AIR COMPRESSOR/TANK  
 NPE - ENGINE WARM UP  
 K40 - ENGINE BRAKE EXHAUST  
 LB7 - ENGINE OPTION  
 AQT - DRIVER AIR SEAT

TD005950

## C4/C5C,E042 Gas Engine L18 Option NB5



GMT 560,C4CO/C5CO-42,2003

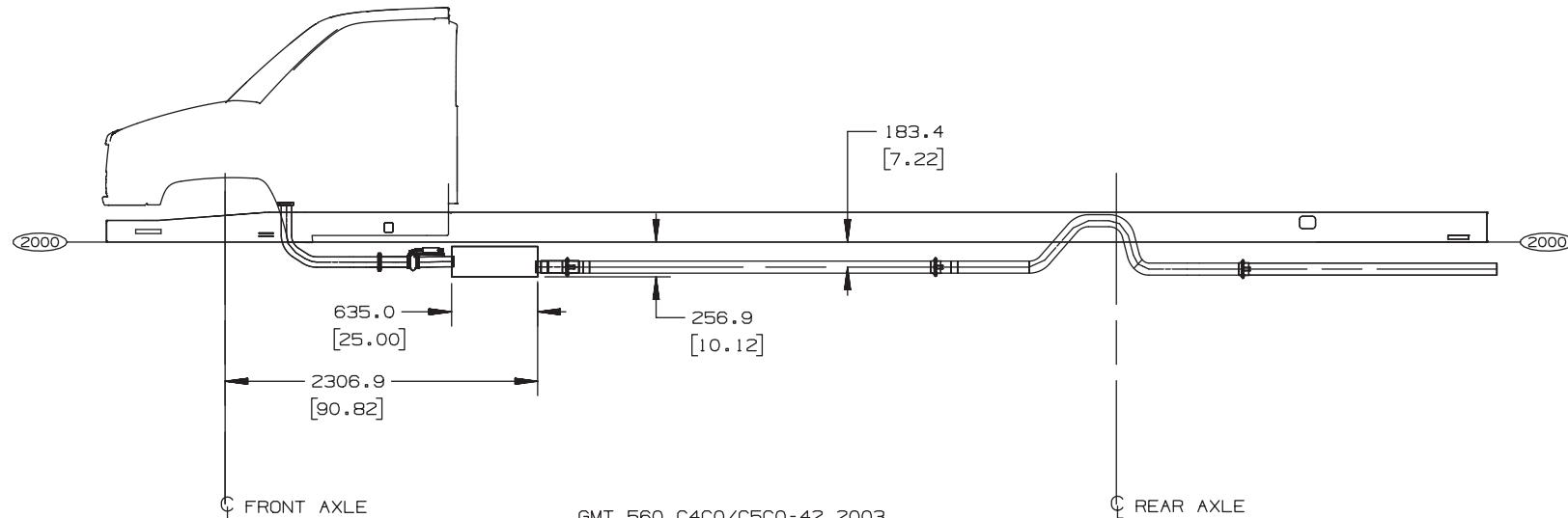
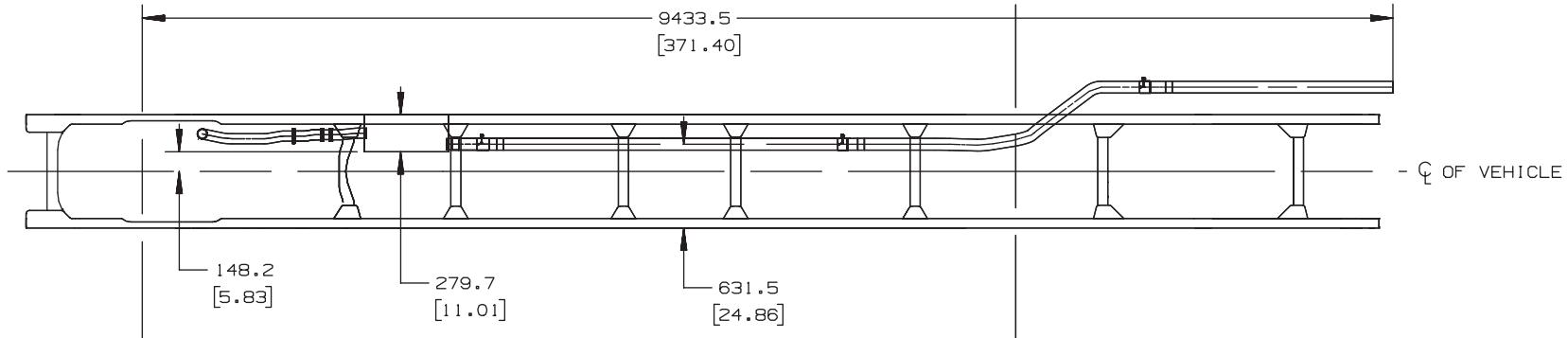
GMT 560,C4E0/C5E0-42,2003

EXHAUST SYSTEM INST. (CONVENTIONAL & CREW CAB)  
AVAILABLE WITH GAS ENGINE (L18) UNLEADED FUEL OPTION NM2  
RPO-FRP,W/B 235"

[ ] = INCHES

TD005953a

## C4/C5C,U,V042 Diesel Engine LB7 Option N12



FRONT AXLE

GMT 560,C4CO/C5CO-42,2003

GMT 560,C4U0/C5U0-42,2003

GMT 560,C4V0/C5V0-42,2003

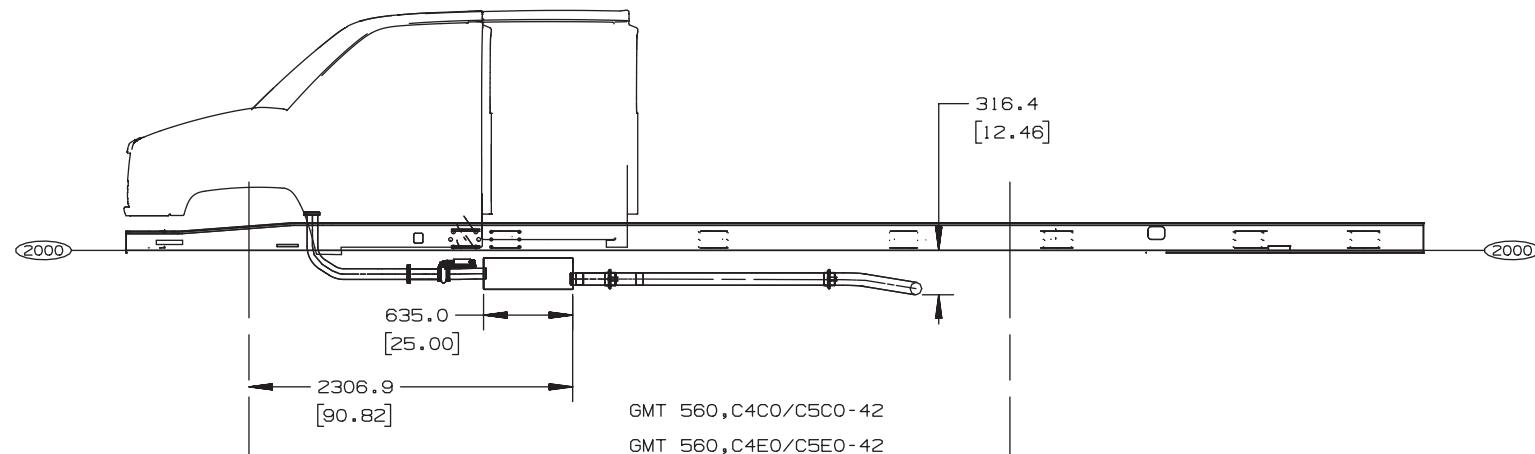
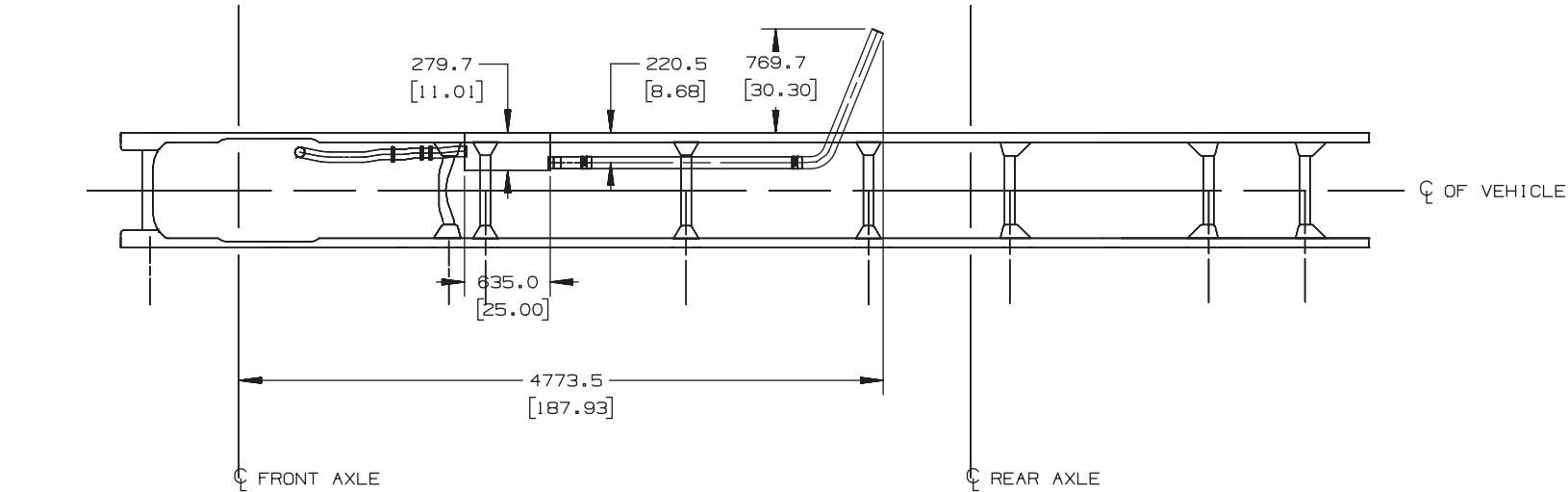
EXHAUST SYSTEM INST. (STD CAB)  
AVAILABLE WITH DIESEL ENGINE (LB7)  
RPO-ET7,W/B 259"

REAR AXLE

[ ] = INCHES

TD005953b

## C4/C5C,U,V042 Diesel Engine LB7 Option N1B



GMT 560,C4C0/C5C0-42

GMT 560,C4E0/C5E0-42

GMT 560,C4U0/C5U0-42

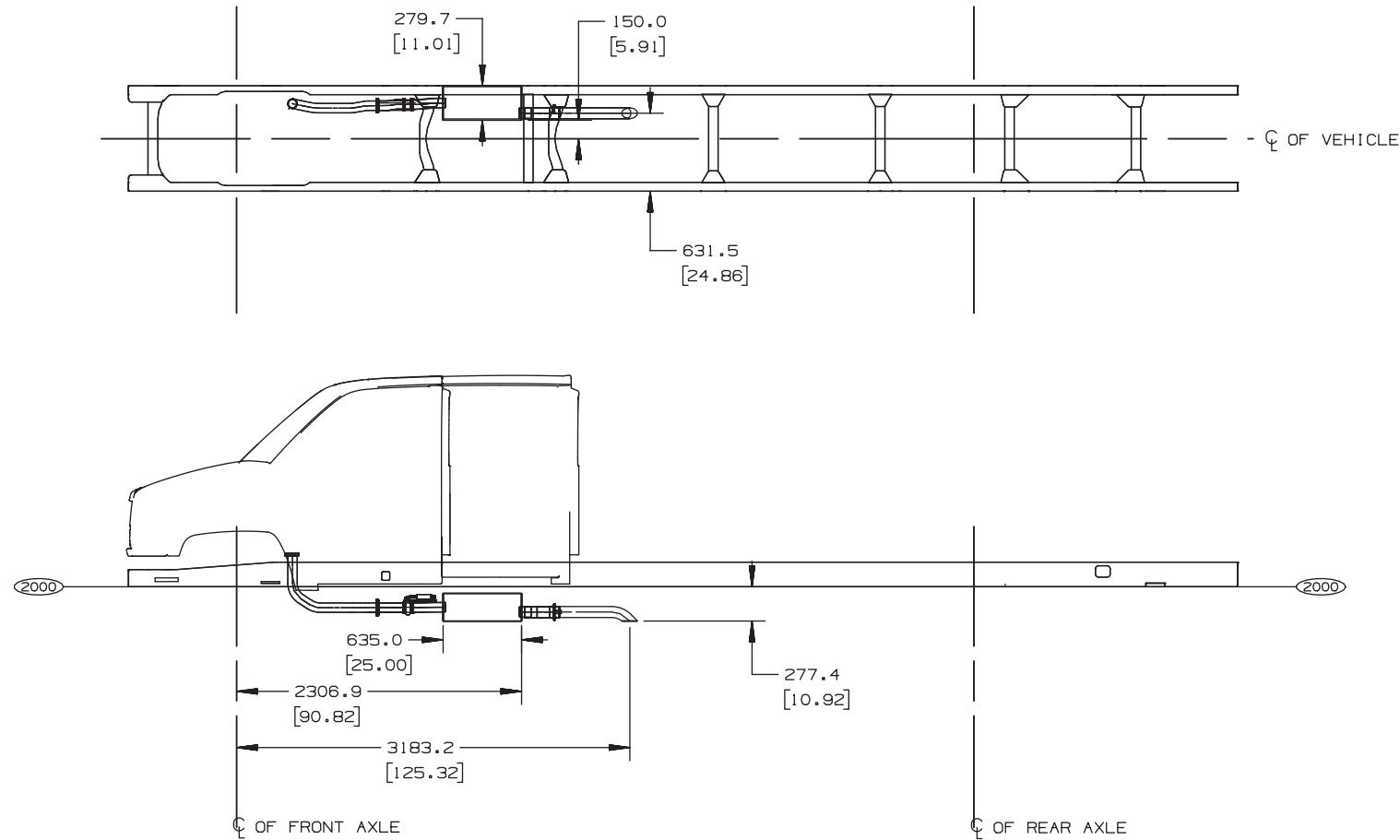
GMT 560,C4V0/C5V0-42

EXHAUST SYSTEM INST.(CONVENTIONAL CAB)  
AVAILABLE WITH DIESEL ENGINE OPTION (LB7)  
RPO-EC4, W/B 213.5"

[ ] = INCHES

**TD005953c**

## C4/C5C,E042 Diesel Engine LB7 Option NB5



GMT 560,C4CO/C5CO-42,2003

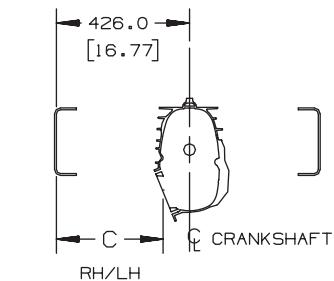
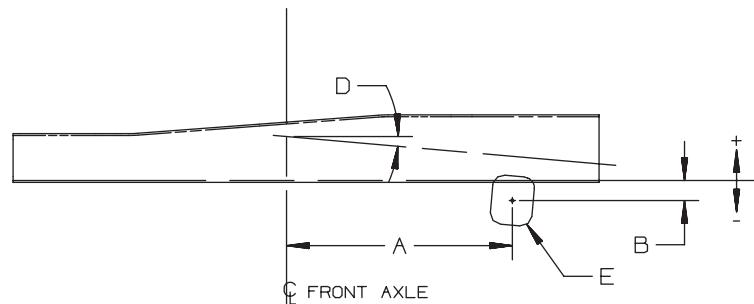
GMT 560,C4E0/C5E0-42,2003  
EXHAUST SYSTEM INST. (CONVENTIONAL & CREW CAB)  
AVAILABLE WITH DIESEL ENGINE OPTION (LB7)  
RPO-FRP,W/B 235"

[ ] = INCHES

TD005953d

**PTO AVAILABILITY CHART TO COME**

## C4/C5 Power Take Off Location and Chart



OF PTO TO INSIDE  
OF FRAME RAIL

ENGINE	TRANSMISSION	LOCATION	DIM A	DIM B	DIM C	DIM D	DIM E
L18 8.1L GAS	ZF S6-650 (ML6)	LH	723.0 [28.46]	-58.6 [-2.31]	347.2 [13.67]	5.0°	6 BOLT
		RH	—	—	—	—	—
	ALLISON LCT2400 (MTW)	LH	713.8 [28.10]	+78.1 [+3.07]	288.0 [11.34]	5.0°	6 BOLT
		RH	713.8 [28.10]	+78.1 [+3.07]	262.0 [10.31]	5.0°	6 BOLT
LB7 6.6L DIESEL	ZF S6-650 (ML6)	LH	713.8 [28.10]	+78.0 [+3.07]	287.7 [11.33]	5.0°	6 BOLT
		RH	713.8 [28.10]	+78.0 [+3.07]	262.2 [10.32]	5.0°	6 BOLT
	ALLISON LCT2400 (MTW)	LH	723.0 [28.46]	-58.6 [-2.31]	341.3 [13.44]	5.0°	6 BOLT
		RH	—	—	—	—	—
	ALLISON LCT1000 (M74)	LH	713.8 [28.10]	+78.1 [+3.07]	288.0 [11.34]	5.0°	6 BOLT
		RH	713.8 [28.10]	+78.1 [+3.07]	262.0 [10.31]	5.0°	6 BOLT

### EXPLANATION OF LETTERED DIMENSIONS

- A= FRONT AXLE TO PTO OPENING
- B= BOTTOM INSIDE OF FRAME RAIL TO PTO OPENING
- C= INSIDE OF FRAME RAIL TO PTO OPENING
- D= DRIVELINE ANGLE
- E= POWER TAKE OFF MOUNTING

C400/C500 00  
TRANSMISSION, POWER TAKE OFF LOCATION

[ ] = INCHES

TD005881

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## Steel Wheels

HUB PILOT													MTG		
HAND HOLE color	SIZE	OPTION		PART NO.	VENDOR NO.	OS	THK	-OS	TYPE	BC DIA	NO. STUDS	FRT	RR	BIAS/RADIAL RATING	TR VALVE
		FRONT	REAR												
4	19.5X6.75	Q82	Q83	15955706	RA 26680-1	5.60	.437	5.16	DCT	275mm	8	PQR	PQS	5000 @ 115	
4	19.5X6.75	Q82&	Q82&	15955707	RA 26680-1	5.60	.437	5.16	DCT	275mm	8	PQR	PQS	5000 @ 115	
4	19.5X6.75	Q82&	Q82&	15013127	RA 26680-1	5.60	.437	5.16	DCT	275mm	8	PQR	PQS	5000 @ 115	
	19.5X6.75	Q82&41P	Q82&41P	15044910	RA 26680-1	5.60	.437	5.16	DCT	275mm	8	PQR	PQS	5000 @ 115	

## Aluminum Wheels

HUB PILOT																	
VENT HOLE	SIZE	OPTION		PART NO.	VENDOR NO.	OS	THK	-OS	TYPE	BC DIA	NO. STUDS	FRT	RR	BIAS/RADIAL RATING	VLV ASM	TR VALVE	MFG
		FRONT	REAR														
8	19.5X6.75	RPM&YU8		15033287	764483	5.551	.827	4.739	DCT	275mm	8	PVG		5500 @ 140	VIEW S	TR5343	Alcoa
4	19.5X6.75		RPW&PNB INNER	15955706	RA 28680-1	5.60	.437	5.16	DCT	275mm	8		PVH	5000 @ 115	VIEW T		Accuride
8	19.5X6.75		RPW&PNB OUTER	15033287	764483	5.551	.827	4.739		275mm	8		PVH	5500 @ 140	VIEW T	TR543	Alcoa

(*Wheels and Tires – continued on next page*)

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(*Wheels and Tires – continued from previous page*)

## Tire Data

Tire Size	Tire RPO	Tread RPO	Tread Type	Goodyear Mfr. RPO code: R4A/S4A			Michelin Mfr. RPO code: R4L/S4L			Bridgestone Mfr. RPO code: R4N/S4N		
				SLR	RPM	DESC	SLR	RPM	DESC	SLR	RPM	DESC
225/70R19.5F	X/Y/ZTN	R3C/S3C	Prem Hwy	15	642	G159	14.8	646	PXZA			
		S3H	Traction	15.1	641	G124	X					
		R3M/S3M	All Season							X		
		R3S/S3S	Motorhome				X					

WHEEL USAGE	Q82/Q83	19.5X6.75	Steel							8 Hole		
	RPM/RPW	19.5X6.75	Aluminum							8 Hole		
	Q91/Q92	19.5X6.0	Steel	To be released						8 Hole		

CODES		R3C/S3C	Premium Highway									
		S3H	Highway Traction									
		R3M/S3M	All Season									
		R3S/S3S	High Rib – Motorhome Specific									

X – Data not available at time of publication.

(*Wheels and Tires – continued on next page*)

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*(Wheels and Tires – continued from previous page)*

**NOTES:** 1) Tire Size RPO Codes beginning with: X – are front tires, Y – are rear tires, Z – are spare tires.

2) RPO P53 specifies spare tire matching front tire, P54 matches rear tire.

3) Tread Code and Manufacturer Code RPO's beginning with: R – are front tires, S – are rear tires.

4) Orders specifying: S3C rear treads require R3C front treads.

S3M rear treads require R3M front treads.

S3S rear treads require R3S front treads.