

ORG5428

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To: Administrator, NHTSA
1200 New Jersey Avenue, SE
Washington, DC
20590

22 July 2009

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Attn: VIN Coordinator

Re: VIN Deciphering Information for Advance Engineered Products Ltd.

Attached are our VIN designators as per 49 CFR Part 565. As a Canadian trailer manufacturer, CMVSS 115 did not require us to submit our designators to Transport Canada. However, we do export to the United States and apply FMVSS compliance labels, so we hereby submit the information necessary to decipher our Vehicle Identification Numbers.

Regards,



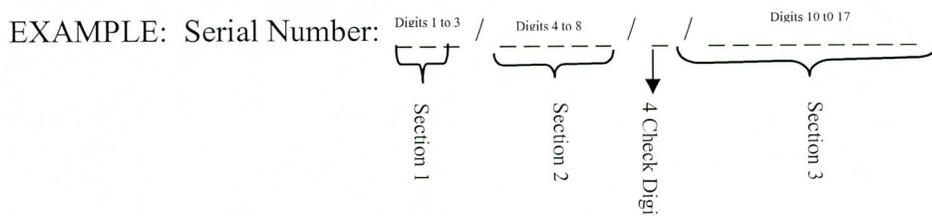
Raymond Strelic, P.Eng.

Advance Engineered Products Ltd.

49 CFR Part 565 - VIN Designators

The vehicle identification number consists of 17 numbers and/or letters separated into 4 groups. The group designations are:

1. World manufactures Identifier (W.M.I.) (characters 1 to 3)
2. Vehicle descriptor (V.D.S.) (characters 4 to 8)
3. Vehicle Indicator (V.I.S.) (characters 10 to 17)
4. Check Digit (character 9)



1. World Manufactures Identifier (section 1)

The World Manufactures Identifier make up the first three characters. This section indicates the manufacturer and class of vehicle. For a trailer or truck body unit enter the first three characters as “2AE”. For converter dollies enter the first three characters as “2AP”

- Trailer Or Truck Bodies 2AE
- Converter Dollies 2AP

EXAMPLE: Serial Number: 2AE / _____ / _ / _____

2. Vehicle descriptor (V.D.S.) (characters 4 to 8 – section 2)

This section is made up of 5 letters. These 5 letters describe the unit further. They will indicate the make, type of trailer, truck body or converter dolly, the unit length, what the unit hauls and the axle configuration. Tank length can be found on the tank drawing. All other information is contained in the Specification sheet.

Taken from CMVSS 115 and 49 CFR Part 565- Table I

Item	Column I Class of Vehicle	Column II Decipherable Information
1.	Passenger car	Line, series, body type, engine type and restraint system type
2.	Multipurpose passenger vehicle	Line, series, body type, engine type and gross vehicle weight rating
3.	Truck	Model or line, series, chassis, cab type, engine type, brake system and gross vehicle weight rating
4.	Bus	Model or line, series, body type, engine type and brake system
5.	Trailer	Make, type of trailer, body type, length and axle configuration
6.	Motorcycle or restricted-use motorcycle	Type of cycle, line, engine type and engine net brake power
7.	Chassis-cab	Model or line, series, cab type, engine type and brake system
8.	Trailer converter dolly	Series and axle configuration
9.	Snowmobile	Type of snowmobile, line, engine type and engine net brake power

Letters 1 and 2 of Section 2

The **first two** letters in this section will indicate the make, type of trailer, truck body or converter dolly. Enter the two letters from the list below that describe the unit type:

Table 1: Alph Indicators for Unit Type

AL	-	Advance "A" Lead Aluminum Tank Trailer
AP	-	Advance "A" Pup Aluminum Tank Trailer
AC	-	Advance "C" Pup Aluminum Tank Trailer
AB	-	Advance "B" Lead Aluminum Tank Trailer
AR	-	Advance "B" Rear Aluminum Tank Trailer
AS	-	Advance Semi – Aluminum Tank Trailer
SL	-	Advance "A" Lead Steel/Stainless Steel Tank Trailer
SP	-	Advance "A" Pup Steel/Stainless Steel Tank Trailer
SP	-	Advance Aluminum/Steel Stiff Pole / Utility Trailer
SC	-	Advance "C" Pup Steel/Stainless Steel Tank Trailer
SB	-	Advance "B" Lead Steel/Stainless Steel Tank Trailer
SR	-	Advance "B" Rear Steel/Stainless Steel Tank Trailer
SS	-	Advance Semi Steel/Stainless Steel Tank Trailer
AT	-	Advance Aluminum Chassis Mounted Tank
ST	-	Advance Steel/Stainless Steel Chassis Mounted Tank
HS	-	Advance Steel Lowboy (Heavy Hauler) Single Droup Semi-Trailer
HD	-	Advance Steel Lowboy (Heavy Hauler) Double Droup Semi-Trailer
FS	-	Advance Steel Flatdeck (Highboy) Semi-Trailer
FS	-	Advance Tube Trailer. – Trailer Only For Westech To Mount Vacuum Tank On
FA	-	Advance Aluminum Flatdeck (Highboy) Semi-Trailer
CS	-	Advance Steel Container Chassis – Semi-Trailer
CA	-	Advance Aluminum Container
AG	-	Advance Aluminum Grain Trailer
SG	-	Advance Steel Grain Trailer
GB	-	Advance Steel "B" Lead Grain Trailer
GR	-	Advance Steel "B" Rear Grain Trailer
VS	-	Advance Steel Van Semi-Trailer
VA	-	Advance Aluminum Van Semi-Trailer
VF	-	Advance F.R.P. Van Semi-Trailer
DS	-	Advance Steel Dump Semi-Trailer
DA	-	Advance Aluminum Dump Semi-Trailer
BL	-	Advance Aluminum/Steel dry Bulker – "A" Lead
BP	-	Advance Aluminum/Steel dry Bulker – "A" Pup
BC	-	Advance Aluminum/Steel dry Bulker – "C" pup
BB	-	Advance Aluminum/Steel dry Bulker – "B" Lead
BR	-	Advance Aluminum/Steel dry Bulker – "B" Rear
BC	-	Advance Aluminum/Steel dry Bulker – Semi
CD	-	Advance Convertor Dolly – Standard
CC	-	Advance Convertor Dolly c/w Self Steering Axle – "C" Type
PL	-	Advance "A" Lead High Pressure Tank Trailer
PP	-	Advance "A" Pup High Pressure Tank Trailer
PC	-	Advance "C" Pup High Pressure Tank Trailer
PB	-	Advance "B" Lead High Pressure Tank Trailer)
PR	-	Advance "B" Rear High Pressure Tank Trailer)
PS	-	Advance Semi High Pressure Tank Trailer
LT	-	Advance Log Trailer – Semi
LB	-	Advance "B" Lead Log Trailer
LR	-	Advance "B" Rear Log Trailer

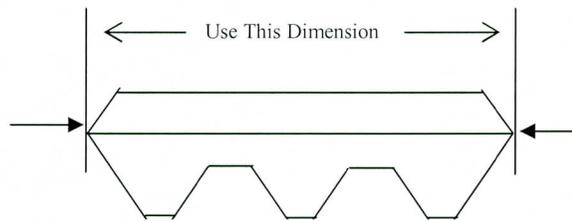
PL	-	Advance Palletized Loading Trailer
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EXAMPLE: Serial Number: 2AE / AS _ _ _ / _ _ / _ _ _ _ _ _ _ _

Letter Three of Section 2

The **third** letter in this section will indicate the length of the trailer, truck body or converter dolly. The length of the unit will be rounded off (rounding down for under .4 and rounding up for over .4).

- For trailer and chassis mounted tanks the dimension will be taken from the “Tank drawing”. Use the “heel to heel” value (given in inches) as the measurement for the distance between the end heads to calculate the foot length for the vessel.
- For Bulker dimensions take the total length of the tank to the longest portion. This dimension can be found on the tank drawing.



After determining the length of the unit (**in feet**), enter the letter from the list below that indicates the unit length (enter as the third character in section 2 on the form):

Table 2: Alpha Indicators for unit length

A - Under 10 Feet	J - 20 Feet	T - 32 Feet
B - 10 – 12 Feet	K - 21 – 22 Feet	U - 33 Feet
C - 13 Feet	L - 23 – 24 Feet	V - 34 – 36 Feet
D - 14 Feet	M - 25 Feet	W - 37 – 39 Feet
E - 15 Feet	N - 26 Feet	X - 40 – 42 Feet
F - 16 Feet	P - 27 – 28 Feet	Y - 43 – 45 Feet
G - 17 Feet	R - 29 – 30 Feet	Z - Over 45 Feet
H - 18 – 19 Feet	S - 31 Feet	

EXAMPLE: Serial Number: 2AE / ASJ _ _ _ / _ _ / _ _ _ _ _ _ _ _

Letter four of Section 2

The **fourth** letter in this section will indicate the type of product which the trailer or truck body is designed to haul. You can find the product to be hauled on the front page of the specification sheet. Enter the letter from the list below that indicates the type of product hauled:

Table 3: Alpha Indicators for Product Type

- A - Light Petroleum, Diesel, Heating Oil (refueler), Lube Oil, Methanol
- B - Crude Oil And Condensate (use if crude + water), Petroleum Distillate
- C - Hot Liquid Asphalt And Bunker Oils
- D - Liquid Chemicals
- E - Dry Bulk (Powdered, Granular, Pebbled Product And Grains)
- F - Heavy Equipment
- G - General Freight
- H - Liquefied Gas Under High Pressure
- K - Non-Designated (water if non-coded tank), Chip Van, Log Trailer, Converter Dolly, Stiff Pole, Liquid Fertilizer.

Letter five of Section 2

The **fifth** letter in this section will indicate the number of axles and the type of suspension configuration of the unit. Enter the appropriate letter from the list below:

Table 4: Alpha Indicators for Number of Axles and Suspension Type

- A - Single Axle – Leaf Spring Suspension
- B - Single Axle – Air Ride or Rubber Spring Suspension
- C - Tandem Axle – Leaf Spring Suspension
- D - Tandem Axle – Walking Beam Suspension
- E - Tandem Axle – Air Ride Suspension
- F - Tri-Axle – Leaf Spring Suspension
- G - Tri-Axle – Leaf Spring/Walking Beam and Air Ride Suspension
- H - Tri-Axle – Air Ride Suspension
- J - Quad Axle – Leaf Spring/Walking Beam – Air Ride Suspension
- K - Quad Axle – Air Ride Suspension
- L - Multiple Axle – Non-Designated Suspension
- M - Two Single Axles – Leaf Spring Suspension
- M - Full Trailer Dolly Fixed
- N - One Single Axle and a Tandem Suspension – Non-Designated
- N - Tri-Axle Pup with Tandem and Dolly
- O - Chassis Mounted Tank/Cargo Tank
- P - Four Axle – Sixteen Wheel Walking Beam Suspension
- R - Non-Designated – Rebarrel
- S - Four Axle – Leaf Spring (Two Tandems)
- T - Two Single Axles – Air Ride Suspension

EXAMPLE: Serial Number: 2AE / ASJAH / _ / _ _ _ _ _ _ _ _ _ _

3. Vehicle Indicator (V.I.S.) (characters 10 to 17 – Section 3)

Letter 1 of Section 3

The **first** letter in this group will indicate the model year of the unit as indicated below

Table 5: Alpha Indicators for Unit Year.

Year	Code	Year	Code	Year	Code	Year	Code
1980	A	1995	S	2010	A	2025	S
1981	B	1996	T	2011	B	2026	T
1982	C	1997	V	2012	C	2027	V
1983	D	1998	W	2013	D	2028	W
1984	E	1999	X	2014	E	2029	X
1985	F	2000	Y	2015	F	2030	Y
1986	G	2001	1	2016	G	2031	1
1987	H	2002	2	2017	H	2032	2
1988	J	2003	3	2018	J	2033	3
1989	K	2004	4	2019	K	2034	4
1990	L	2005	5	2020	L	2035	5
1991	M	2006	6	2021	M	2036	6
1992	N	2007	7	2022	N	2037	7
1993	P	2008	8	2023	P	2038	8
1994	R	2009	9	2024	R	2039	9

Letter 2 of Section 3

This letter will indicate the location (or branch) which will fabricate the unit.

Table 6: Alpha Indicators for Branch Location

- C - Calgary K - Kamloops S - Saskatoon
- E - Edmonton R - Regina V - Surrey

EXAMPLE: Serial Number: 2AEASJAH _ 2S _ _ _ _ _

Last Six Digits in Section 3

These last six positions will be used to indicate production sequence of the unit. These six digits can be found in the serial number book. Regina units will be listed in numerical order under “job number”. Locate the job number that you are currently working on in the column marked “job number” in the serial number book. Follow the row to your left to find a 3-digit number (in the column labeled “serial number”). Enter these three numbers in the final three spaces on the “serial number form”

EXAMPLE: Serial Number: 2AEASJAH _ 2S _ _ _ 465

For all locations enter zero’s to fill in the space between the location letter and the sequential number.

EXAMPLE: Serial Number: 2AEASJAH _ 2S000465

Branch units are not pre-entered under the job number in the serial number book. For branch jobs you will be required to assign the last three digits to the serial number. In the column labeled "Serial Number", locate the next available row in the book.

Serial number	Description	Estimate	Line/tank	Customer
		Number	Drwgs	
2AESTJBO2E000112	100BBL STL CHASSIS MTD	010113	CL012022	SHELL
2AESTJBO2E000113	100BBL STL CHASSIS MTD	010113	CL012022	SHELL
2AESTJBO2E000114	90 BBL ALUM CHASSIS MTD	010114	CL06033	IPO
Next Available Row				

Enter the next sequential number and use it as the last three digits on the "serial number form".
 In the example above you would use the number "115" as the last three digits of the serial number.
 EXAMPLE: Serial Number: 2AEATJAH _ 2E000**115** (note that the branch here is Edmonton)

4. Check Digit (character 9 – section 4)

The **ninth** character in the serial number is a "Check Digit". This number is derived by using simple calculations.

All characters in the serial number from this point on will be **assigned a numerical value**. Numeric values will remain at their current value. Alpha characters will be assigned a numerical value.

All the charaters in the Vehicle Identification Number will be given a numerical value as follows:

Table 7: Assigned Numerical Values for Alpha Characters

A - 1	F - 6	L - 3	S - 2	W - 6
B - 2	G - 7	M - 4	T - 3	X - 7
C - 3	H - 8	N - 5	U - 4	Y - 8
D - 4	J - 1	P - 7	V - 5	Z - 9
E - 5	K - 2	R - 9		

The check digit will be given a 0 value for the purpose of calculation.

This **assigned numerical value** will then be multiplied with a second assigned value. This value is called a weight factor. Each character in the Vehicle Identification Character will have the following "Weight Factors" assigned to them:

Table 8: Assigned Weight Factor Values

1 st - 8	5 th - 4	Check Digit - 0	10 th - 9	14 th - 5
2 nd - 7	6 th - 3		11 th - 8	15 th - 4
3 rd - 6	7 th - 2		12 th - 7	16 th - 3
4 th - 5	8 th - 10		13 th - 6	17 th - 2

If the resulting number is 10 then the check digit will be an "X".
If the resulting number is a whole number (no fraction) the check digit is 0.