



ORIGINAL

B 11/21/85 pdg
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WATERS BROTHERS CONTRACTORS, INC.

SPECIALIZING IN ROOFING, SHEET METAL FABRICATING, AND WATERPROOFING

1017 COKEY ROAD
ROCKY MOUNT, NORTH CAROLINA 27801

November 15, 1985



01-22-N11B-2085

Administrator
National Highway Traffic Safety Administration
400 Seventh Street S. W.
Washington, D. C. 20590

Attention: VIN Coordinator

Re: Check Digit Calculations

Dear Sir;

Enclosed; please find a copy of my check digit calculations for a trailer we have manufactured. As you see, we have been through the proper channels and obtained our WMI and VIN numbers. I hope I have completed this form properly. We have a sale for this trailer and from the information I have received; I was instructed to mail this to you for approval. The trailer is a flat bed, 14', one (1) axle, 1985 Crosley Trailer.

Do you send me the titles for these trailers? Do I have to fill out a different form for each trailer? If so, what is my next step. I will appreciate any help or information you can furnish me.

Thank you for your time and consideration on this matter. I will be waiting to hear from you

Respectfully,

WATERS BROTHERS CONTRACTORS, INC.

Lou W. Carson
Secretary

lwc

CHECK DIGIT CALCULATIONS

| CHARACTER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|--|---|----|----|----|---|---|---|----|---|----|----|----|----|----|----|----|----|
| ACTUAL VIN | 1 | W | 9 | F | S | 1 | 4 | 1 | 3 | F | 1 | 0 | 7 | 1 | 0 | 0 | 1 |
| CONVERTED VALUES from TABLE A (below) | 1 | 6 | 9 | 6 | 2 | 1 | 4 | 1 | 0 | 6 | 1 | 0 | 7 | 1 | 0 | 0 | 1 |
| MULTIPLIER (X) | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 10 | 0 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 |
| PRODUCT (Value x multiplier) | 8 | 42 | 54 | 30 | 8 | 3 | 8 | 10 | 0 | 54 | 9 | 7 | 42 | 5 | 4 | 3 | 2 |

*Daphine
Brown said
to hand change
the check digit to
a X.*

SUM OF PRODUCTS = 289

11/21/85
zdy

SUM OF PRODUCTS = 289

DIVIDED BY 11 = 26 . 27

ALPHABETIC TO NUMERIC CONVERSION VALUES

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

TABLE A

| IF DECIMAL IS | CHECK DIGIT IS | IF DECIMAL IS | CHECK DIGIT IS |
|---------------|----------------|---------------|----------------|
| .09 | = 1 | .54 | = 6 |
| .18 | = 2 | .63 | = 7 |
| .27 | = 3 | .72 | = 8 |
| .36 | = 4 | .81 | = 9 |
| .45 | = 5 | .90 | = X |
| | | .00 | = 0 |

TABLE B

NOTE: Numerical characters from actual VIN are used in check digit calculation. Alphabetical characters are converted to numerical, according to TABLE A values.

EXAMPLE:

ABC Trailers, Inc. builds a flat bed standard series trailer with a 16 foot bed length on two axles at a plant in Cleveland, Ohio. What is the VIN coding for this trailer?

Since ABC manufactures less than 500 units per year, SAE assigned ABC a six digit number as follows: 1A9/347. (1A9 goes in columns 1-3 and 347 goes in columns 12-14). ABC has elected to code body type in column 4, series in column 5, length in columns 6 and 7 and number of axles in column 8. (The characters utilized and their placement are determined by the manufacturer, but must include all required attributes for vehicle type). ABC's coding for vehicle attributes are: Type—F=flatbed, U=utility; Series/body type—S=standard, P=special; Length—actual overall bed length in feet (08, 12, 16, etc.) and number of axles—1=single, 2=tandem, etc. The letter F designates the 1985 model year and ABC uses the letter C for the location of their only plant, in Cleveland.

| CHARACTER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|----------------------------------|---|---|----|----|---|---|----|----|---|----|----|----|----|----|----|----|----|
| ACTUAL VIN | 1 | A | 9 | F | S | 1 | 6 | 2 | 5 | F | C | 3 | 4 | 7 | 0 | 0 | 1 |
| CONVERTED VALUES from TABLE A | 1 | 1 | 9 | 6 | 2 | 1 | 6 | 2 | 0 | 6 | 3 | 3 | 4 | 7 | 0 | 0 | 1 |
| MULTIPLIER (X) | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 10 | 0 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 |
| PRODUCT (Value x multiplier) | 8 | 7 | 54 | 30 | 8 | 3 | 12 | 20 | 0 | 54 | 24 | 21 | 24 | 35 | 0 | 0 | 2 |

SUM OF PRODUCTS = 302

DIVIDED BY 11 = 27 . 45

Since the check digit calculation for ABC Trailers resulted in a decimal value of .45, Table B shows that the check digit is 5. The value 5, placed in position 9 of the actual VIN, completes the 17 digit VIN requirements.

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NRM-40

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