HENDRICKSON MOBILE EQUIPMENT
A Boler Company

B
REVISED

September 3, 1983

National Highway Safety Traffic Administration
400 7th Street S. W.
Washington, D.C. 20590

Attn: Mr. Nelson Erickson

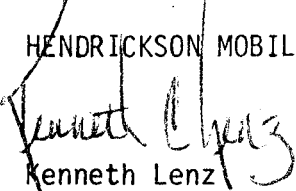Re: FMVSS 115

Dear Mr. Erickson:

Enclosed please find an updated listing of Hendrickson Mobile Equipment's VIN coding.

Revision "D" incorporates two vehicle attribute additions.

Any questions, please contact the writer.

Sincerely,

HENDRICKSON MOBILE EQUIPMENT

Kenneth Lenz
Product Development Engineer

KCL:pp

cc: G. Wayer
     H. Cease

HENDRICKSON Mfg.Co.

MOBILE EQUIPMENT DIVISION

| TO: H. Cease | SUBJECT: New Vehicle Identification Number (VIN) System All Hendrickson Chassis | DATE: 11-25-80 |
| | | FILE: |

| FROM: K. Lenz | DEPARTMENT: Engineering | COPIES TO: Wm. Petrie, D. Meredith, R. Vong, Nelson Erickson, NHTSA/DOT | A. Marks, B. Traynor, G. Wayer |

To comply with Government regulations, a new 17 digit vehicle identification number (VIN) structure is to be used on Hendrickson vehicles in lieu of the old five digit structure.

Starting January 1, 1981, all vehicles will incorporate the new 17 digit (VIN) structure.

The chart below details the foremat of the new VIN structure:

CHARACTER POSITION   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Typical Vehicle Identification No.- 1 1 H F T 4 4 8 * A L 3 1 4 9 8 2

WORLD MAKER IDENTIFIER

VEHICLE ATTRIBUTES

GVWR CLASS OR/ENGINE - BRAKE CODE
          (in case of complete vehicle)
CHECK DIGIT

MODEL YEAR IDENTIFIER
PRODUCTION PLANT

HENDRICKSON SERIAL NUMBER SEPARATION CHARACTER

CHASSIS SERIAL SEQUENCE (Incorporating Our Current S/N)

<u>Positions 1 thru 3 - World Maker Identifier</u>

11-H - U.S. Produced Hendrickson Chassis

POSITIONS 4 thru 8 - VEHICLE ATTRIBUTES

CHARACTERS	MODEL SERIES, TYPE	GVWR CLASS (+)	DESCRIPTION
FB 427	FC Bus	7	4 x 2 Bus Chassis
FB 428	FC Bus	8	4 x 2 Bus Chassis
FB 648	FC Bus	8	6 x 4 Bus Chassis
RB 426	RE Bus	6	4 x 2 Bus Chassis
RB 427	RE Bus	7	4 x 2 Bus Chassis
RB 428	RE Bus	8	4 x 2 Bus Chassis
FD 424	FD Bus	4	4 x 2 Bus Chassis
FD 624	FD Bus	4	6 x 2 Bus Chassis
FD 425	FD Bus	5	4 x 2 Bus Chassis
FD 625	FD Bus	5	6 x 2 Bus Chassis
FB 668	FC Bus	8	6 x 6 Cabless Chassis
RF 628	Refueler	8	6 x 2 Chassis & Cab
HM 648	H Model	8	6 x 4 Chassis & Conventional Cab Truck
HM 668	H-Model	8	6 x 6 Chassis & Conventional Cab Truck
HM 64*	H-Model	8	6 x 4 Chassis & Conventional Cab Tractor
HM 66*	H-Model	8	6 x 6 Chassis & Conventional Cab Tractor
GH 64*	Glider Kit	8	6 x 4 Chassis & Conventional Cab Truck
GH 64*	Glider Kit	8	6 x 4 Chassis & Conventional Cab Tractor
CD 648	Crane Carrier/Drill Rig	8	6 x 4 Chassis & Cab Carrier
CD 668	Crane Carrier/Drill Rig	8	6 x 6 Chassis & Cab Carrier
CD 848	Crane Carrier/Drill Rig	8	8 x 4 Chassis & Cab Carrier
CD 868	Crane Carrier/Drill Rig	8	8 x 6 Chassis & Cab Carrier
CD 048	Crane Carrier/Drill Rig	8	10 x 4 Chassis & Cab Carrier

Rev. "A" Added CD 048
Ref. "D" Added FB 668

CHARACTERS	MODEL SERIES/TYPE	GVWR CLASS (+)	DESCRIPTION
CD 248	Crane Carrier/Drill Rig	8	12 x 4 Chassis & Cab Carrier
CD 268	Crane Carrier/Drill Rig	8	12 x 6 Chassis & Cab Carrier
DM 42*	Dockmaster	8	4 x 2 Chassis & Cab Tractor Off-Highway
DM 44*	Dockmaster	8	4 x 4 Chassis & Cab Tractor Off-Highway
FT 427	Firetruck	7	4 x 2 Chassis & COE Cab Truck
FT 428	Firetruck	8	4 x 2 Chassis & COE Cab Truck
FT 448	Firetruck	8	4x4 Chassis & COE Cab Truck
FT 648	Firetruck	8	6x4 Chassis & COE Cab Truck
FT 668	Firetruck	8	6x6 Chassis & COE Cab Truck
FT 628	Firetruck	8	6x2 Chassis & COE Cab Truck
TC 427	Truck	7	4x2 Chassis & COE Cab Truck
TC 428	Truck	8	4x2 Chassis & COE Cab Truck
TS 428	Truck	8	4x2 Chassis & Cab Beside Engine Truck
TS 648	Truck	8	6x4 Chassis & Cab Beside Engine Truck
SH 648	Truck	8	6x4 Chassis & Cab Heavy Hauler
SH 668	Truck	8	6x6 Chassis & Cab Heavy Hauler
RT 448	Truck	8	4x4 Chassis & Cab Rear Engin

*These are completed vehicles as delivered from Hendrickson
The 8th Character will be as follows:

POSITION 8 - ENGINE BRAKE CODE (in case of complete vehicles only)

0 - Gas Engine & Air Brakes
1 - Small Diesel & Air Brakes
2 - Medium Diesel Engine & Air Brakes
3 - Large Diesel Engine & Air Brakes
X - No Engine & Air Brakes Partially Supplied

Rev. "A" - TC 427 & TC 428 were TO 427 & TO 428
Rev. "C" - Added SH 648, SH 668, RT 448
REV. "D" - Added FT 628

NOTES:

1. In glider models, engines are user supplied, letter "X" is to be used in position 8.
2. Size of diesel is determined by cubic inches of engine
   Small Diesel – Up to 500 Cubic Inches
   Medium Diesel – Up to 501 – 699 Cubic Inches
   Large Diesel – Over 700 Cubic Inches

+ GVWR CLASSES ARE:

CLASS		CLASS	GVWR
		6	19,501 – 26,000 Pounds
4	14,001 – 16,000 pounds	7	26,001 – 33,000 Pounds
5	16,001 – 19,500 pounds	8	33,001 Pounds and Over

NOTE: In Glider Models, engine, drivetrain, rear suspension, and rear axles are user supplied. The use of lower rated components than in the glider design may reduce GVWR Class.

POSITION 9 – CHECK DIGIT
Calculated from other 16 positions – Explained later

POSITION 10 – MODEL YEAR IDENTIFIER
*(Model Year Begins Dec.1 thru Nov. 30)

A – 1980	F – 1985
B – 1981	G – 1986
C – 1982	H – 1987
D – 1983	J – 1988
E – 1984	K – 1989

*Any vehicle with a line set date of Dec. 1 or after of any set year will carry a model year designation of the next calendar year.

POSITION 11 – PLANT IDENTIFIER

L = Lyons, Illinois

POSITION 12 – SEPARATION CHARACTER FOR SERIAL NUMBER

Z – Separates our Serial Number From Remaining VIN

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Rev. "A" – Added Model Year Dates
Rev. "B" – Model Year Change
Rev. "C" – Model Year Change

POSITION 13 - 17 - CHASSIS SERIAL SEQUENCE

Our Current Serial Numbering System

The VIN will be shown in the following locations:

1. Vehicle Identification Plate
2. Hrst Page of Incomplete Vehicle Document
3. Certification Label
4. Computer Bill of Materials

Glider Kits by definition are not motor vehicles or incomplete motor vehicles, therefore, the new VIN requirements do not apply. Hendrickson assigns a number to Glider Kits for record purposes and traceability.

A Glider Kit which is made into a new motor vehicle through the use of new drive-line components (i.e. engine, transmission, rear axle(s) must comply with all applicable Federal Motor Vehicle Safety Standards and be properly certified. In this case a 17 digit VIN must be assigned by the manufacturer or builder of the new motor vehicle. Should this be the case, seek legal assistance to assure compliance.

A Glider Kit which is used to reconstruct a vehicle (i.e. used driveline components from another motor vehicle) the VIN originally issued for the vehicle must be the one that is assigned. Again seek legal assistance to assure compliance with federal and state or local requirements regarding registration and titling.

POSITION 9 CHECK DIGIT CALCULATION

The check digit is determined by carrying out the mathematical computation as follows:

1. Assign to each number in the VIN its actual mathematical valve and assign to each letter the letter specified for it in table I.

TABLE I

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

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2. Multiply the assigned valve for each character in the VIN by the weight factor specified for it in Table II. Multiply the check digit by 0.

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TABLE II

</div>

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

3. Add the Resucting Products and Divide the Total by 11.

4. The Remainder is the Check Digit. If the remainder is 10, the check digit is "X"

EXAMPLE:

VIN	1	1	H	F	T	4	4	8	–	A	L	Z	1	4	9	8	2
ASSIGNED VALVE	1	1	8	6	3	4	4	8	–	1	3	9	1	4	9	8	2
MULTIPLY BY WEIGHT FACTOR	8	7	6	5	4	3	2	10	0	9	8	7	6	5	4	3	2

ADD PRODUCTS   8 + 7 + 48 + 30 + 12 + 12 + 8 + 80 + 0 + 9 + 24 + 63 + 6 + 20 + 36 + 24 + 4

DIVIDE BY 11   391/11 = 35 6/11

CHECK DIGIT   6 (Character in 9th Position)

KL:pp