

## FEDERAL EXCISE TAXES (F.E.T.) CALCULATIONS

**Foreword:** Trailers are normally designed to transport a particular type of cargo and, as a result of that design, are assigned a Gross Vehicle Weight Rating (GVWR) by the manufacturer. Federal Regulations (see 49 CFR 571.3) definitions state, “GVWR means the value specified by the manufacturer as the loaded weight of a single vehicle”. Further, various NHTSA Chief Counsel’s interpretation letters should also be considered by a manufacturer in determining what GVWR to assign to a particular trailer. (See <http://www.nhtsa.dot.gov>, click on “Table of Contents”, click on “Regulations and Standards” under “NHTSA’s Interpretation Files Search” or request interpretations by writing to NHTSA Technical Reference Room 5108, 400 Seventh Street SW, Washington, DC 20590 or by phone at (202) 366-4941 with a reference to 49 CFR part or NHTSA regulation being interpreted). The interpretations may or may not fit your situation but generally may still be applicable to the standards and regulations currently in effect. An excerpt from an interpretation letter dated May 27, 1975 to Johnson, Hogan & Ometer states, “The gross vehicle weight rating (GVWR) of a trailer consists of the weight of the empty trailer plus its rated cargo load”. The GVWR may be higher or lower in value than the sum of the Gross Axle Weight Ratings (GAWR’s) (See various NHTSA interpretation letters). The manufacturer may also set a lower GVWR because of certain structural component limitations on the trailer. While this is certainly permissible, a manufacturer should have supporting documentation for such ratings. This may include various capacity calculations, actual testing data, etc.

Many manufacturers use the “sum of the axle ratings” to set the GVWR for their trailers. They do this because the calculations are simple and generally are conservative in nature, as this method does not take into account the amount of weight being carried by the tow vehicle. It is also the method that may put a manufacturer at risk with the IRS on certain trailers, typically triple 7,000 and 8,000 lbs or higher applications. This is not the method used by the I.R.S. to determine whether a trailer may be subject to F.E.T.

The method that the I.R.S. will use to determine F.E.T. is outlined below:

### 1. Excise Taxes

Trailers with a GVWR less than 26,000 lbs are Exempt from Federal Excise Tax

Trailers with a GVWR over 26,000 lbs are Subject to Federal Excise Tax

The information in this section may be helpful for those manufacturers who build trailers over 26,000 GVWR.

Those manufacturers with potential excise tax responsibilities should recognize that there are some very specific regulations they should obtain from the I.R.S. This will assist in determining who should collect excise taxes on trailers over 26,000 lbs. GVWR. Prior to January 1998, retailers had to have an I.R.S. Form 637 Registration on file with the I.R.S. This allowed passing the tax liability from the manufacturer to the retail dealer. In January 1998, this requirement was eliminated. Currently when a manufacturer sells to a

retail dealer the following statement, **printed on the invoice to the dealer**, must be present to pass the tax liability to the dealer:

**“This vehicle is being sold for resale or lease”**

The section of the 1997 Taxpayer Relief Act that includes the reference for this verbiage is as follows:

Sec. 1434. MODIFICATIONS TO RETAIL TAX ON HEAVY TRUCKS

(b) SIMPLIFICATION OF CERTIFICATION PROCEDURES WITH RESPECT TO SALES OF TAXABLE ARTICLES

(2) REQUIREMENT TO MODIFY REGULATIONS – Section 4052 is amended by adding at the end the following new subsection:

“(g) REGULATIONS – The Secretary shall prescribe regulations which permit, in lieu of any other certification, persons who are purchasing articles taxable under this subchapter for resale or leasing in a long-term lease to execute a statement (made under penalties of perjury) on the sale invoice that such sale is for resale. The Secretary shall not impose any registration requirement.”

## **2. Trailer Restorations and Repair and the Federal Excise Tax (FET):**

Effective January 1, 1998, FET will not have to be paid on repairs when the cost of the repairs does not exceed 75% of a new comparable trailer sold at retail. Generally this 75% rule applies to wrecks and restorations. Modifications of a chassis or body (previously not taxable) that converts to a chassis or body that is taxable will remain taxable.

NOTE 1: Refer to Section C-2 for an explanation of GVWR Computation Methods.

NOTE 2: PAYING EXCISE TAXES. According to the I.R.S., the **first retail seller** must register with the I.R.S. using **form 637**. The 637 is required when a manufacturer or retailer is exporting or selling (quoting) to a state or local government. It is a good idea to be registered because of the educational benefits. The “**Activity Letter** applicable to trailers is **Q**”. (Ref. [http://www.irs.gov/bus\\_info/excise/index.html](http://www.irs.gov/bus_info/excise/index.html)) The I.R.S. will then issue a registration number to the **retail seller** (which may be a manufacturer or a dealer) which is required before a trailer is sold that exceeds 26,000 lbs. GVWR. **The first retail seller is responsible for collecting the 12% F.E.T. of the purchase price.** The tax should be remitted to the I.R.S. along with completed form 720. This information is covered in Publication #510 – Excise Taxes, available from any I.R.S. District Office or on their website at [http://www.irs.gov/forms\\_pubs/pubs.html](http://www.irs.gov/forms_pubs/pubs.html). Form 637 may also be downloaded at this website.

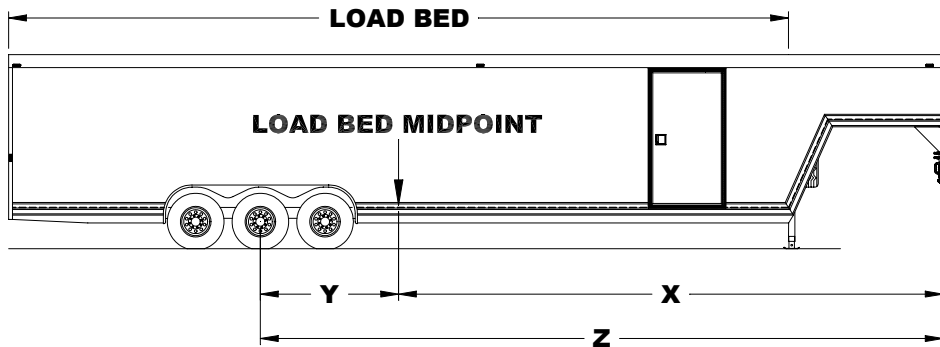
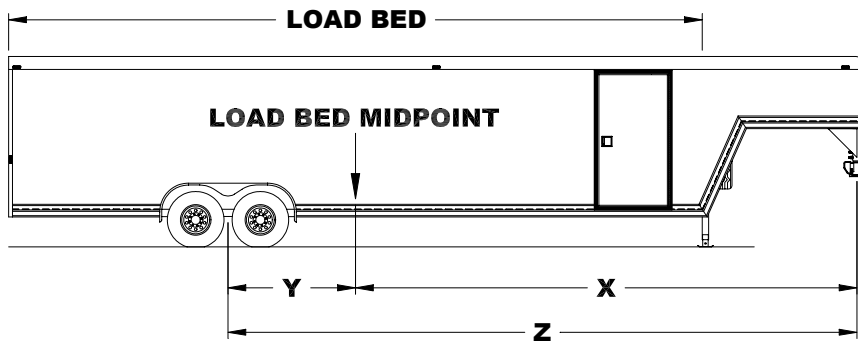
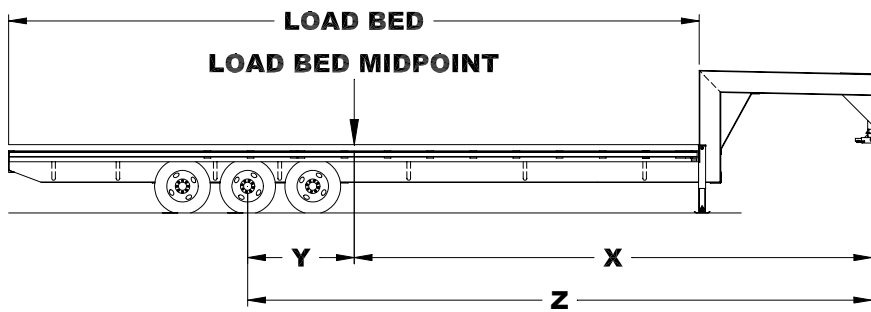
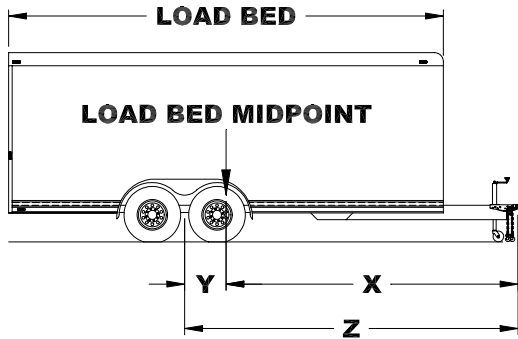
### 3. Guidelines For Calculating Federal Excise Tax

The National Association of Trailer Manufacturers has been in contact with the I.R.S. Federal Excise Tax officials at the national level in order to reduce the incidence and reports of inconsistent enforcement of F.E.T. rules by I.R.S. offices around the country. While the following should not be relied upon as an official interpretation or ruling by the I.R.S. nor the NATM. NATM has obtained an unofficial agreement on several key points which should be considered when making the calculations to determine F.E.T. liability. They are discussed below.

**Revenue Procedure 76-21, 1976-1 CB 561** establishes the method used by the I.R.S. for determining the GVW of a trailer **for F.E.T. purposes.** It must be noted that this method is used for the calculation to determine if the I.R.S. will consider a trailer to be F.E.T. taxable and may not reflect the actual GVWR, which the manufacturer had intended for the trailer and has specified on that trailer. The burden of proof will lie with the manufacturer to support a contention that the GVWR is something different or less than the GVW calculated by this method.

**Load Bed Defined:** Generally, “the load bed would be defined as that portion of the trailer that is designed to haul the type of cargo the trailer is primarily designed for”. Generally, the area over a gooseneck trailer would not be included in the load bed dimension measurements for a horse, livestock, car trailer, etc., as the user could not haul the primary type of cargo in the space over the gooseneck. An exception may need to be made for a dry freight trailer, where cargo could be carried over the gooseneck. The key here is the type of cargo the trailer is primarily designed to transport. In the case of trailers with living quarters, although the living quarters area would be considered incidental to the primary cargo the trailer is designed to transport, the living quarters area may also be considered to be part of the load bed except for the area over the gooseneck. The diagrams that follow show the dimensions which may be used in calculating the GVW, as shown below, except for the case where a freight trailer is designed to utilize the space over the gooseneck for the loading of cargo. In the case of the freight trailer, the load bed dimensions would likely include that area.

#### 4. LOAD BED DIAGRAMS



## 5. Formula for Calculating GVW for F.E.T. Purposes

Rev. Proc. 76-21, 1976-1 CB 561 determines the GVW on the basis of the axle ratings and the weight borne by the towing vehicle. The following formula is used to determine GVW for F.E.T. purposes.

Where:

$X$  = distance from trailer hitch to center of load bed

$Y$  = distance from center of load bed to center of axle group (for a tandem axle the center of the two axles, for a triple axle trailer, the center of hub of the middle axle)

$Z$  = distance from the trailer hitch to the center of the axle group (for a tandem axle the center of the two axles, for a triple axle trailer, the center of hub of the middle axle)

**FORMULA:**  $GVW = (Axle\ Rating) \times (Axle\ Qty) / (X/Z)$

Example 1:

$X = 342$  inches

$Y = 96$  inches

$Z = 438$  inches

Three (Qty) 7,000 (Rating) pound axles = 21,000 pounds total axle capacity

$342/438 = .78082$  = Percent of load carried by trailer

21,000 pounds divided by  $.78082 = 26,895$  lbs. GVW

Example 2:

$X = 354$  inches

$Y = 108$  inches

$Z = 462$  inches

Two (Qty) 10,000 (Rating) pound axles = 20,000 pounds total axle capacity

$354/462 = .76623$  = Percent of load carried by trailer

20,000 pounds divided by  $.76623 = 26,102$  lbs. GVW

## 6. SUMMARY

**It is up to the manufacturer to determine the GVWR of its trailers (Reference 49 CFR 571.3).** If a manufacturer wishes to set the GVWR of a trailer lower than the value that would be calculated by the formula, as outlined in Rev. Proc. 76-21, 1976-1 CB 561, the manufacturer may do so in lieu of using the formula; however, **the burden of proof will be upon the manufacturer** to prove to the satisfaction of the I.R.S. that a trailer was designed with a different or lower GVWR than what would be determined by using the I.R.S. formula shown in Rev. Proc. 76-21. ■ This would include consideration involving structural limits determined by the manufacturers design of the trailer. The manufacturer must be able to document the rationale it used to determine the de-rated GVWR. This may include engineering calculations and testing data the manufacturer has on the design of its trailers or other such information, which may provide such documentation.

### **Other Considerations:**

Manufacturers should make sure that all literature, drawings, specifications, etc., are consistent when showing the dimensions of the “load bed”. While a manufacturer would normally decide what type of cargo a trailer is designed to haul and thus, by the nature of that cargo, have a load bed determined, the manufacturer should in its material clearly identify the portion of the trailer that will carry the load. Most manufacturers, when describing a trailer length on a gooseneck trailer, measure from the gooseneck drop wall to the rear of the trailer. For example, an 8 x 30 trailer would be 8 feet wide and 30 feet long (as measured from the gooseneck drop wall to the rear of the trailer), and thus defining the “load bed” for that trailer. However, if a manufacturer includes in its literature or material describing a trailer a length that is measured from the nose of the trailer to the rear of the trailer, then the I.R.S. would be likely to use such a dimension in its calculation of F.E.T. Be consistent, document, and maintain good records.

**Revenue Procedure 76-21, 1976-1 CB 561** which is the procedure that the I.R.S. relies upon for guidance for its interpretation and application of the Federal Excise Tax calculations on trailers, is reprinted in its entirety on the pages that follow.

NATM members should consult and seek appropriate tax and legal counsel in all cases.

## **7. Internal Revenue Service**

### **Revenue Procedure 76-21, 1976-1 CB 561**

*26 CFR 601.105: Examination of returns and claims for refund, credit or abatement; determination of correct tax liability. (Also Part I, Section 4061; 142.1-1.)*

#### **SECTION. 1. PURPOSE**

The purpose of this Revenue Procedure is to republish Rev. Proc. 74-41, 1975-2 C.B. 574, to reflect certain changes made therein. That Revenue Procedure establishes a method for determining the gross vehicle weight rating of a semitrailer for purposes of the manufacturers excise tax imposed by section 4061 of the Internal Revenue Code of 1954. This method is intended to apply where gross vehicle weight of a semitrailer is determined on the basis of either the sum of the axle ratings or the readily attachable components.

The changes in Rev. Proc. 75-41 that are reflected in this Revenue Procedure consists of a correction of the regulation citation in the first sentence of Section 2.03, the substitution of the words "load bed" for "load" in the second paragraph of Section 3, and the insertion of an additional paragraph preceding the final paragraph of the Revenue Procedure.

#### **SECTION. 2. BACKGROUND**

01. Section 4061(a)(1) of the Code imposes a 10 percent tax on the sale by the manufacturer, producer, or importer of certain enumerated articles including trailer and semitrailer bodies and chassis.

02. Section 4061(a)(2) of the Code provides that the tax imposed by section 4061(a)(1) shall not apply to a sale by the manufacturer, producer, or importer of a truck trailer and semitrailer chassis and bodies, suitable for use with a trailer of semitrailer having a gross vehicle weight of 10,000 pounds or less (as determined under regulations prescribed by the Secretary of the Treasury or his delegate). However, such a trailer or semitrailer must be suitable for use with a towing vehicle having a gross vehicle weight of 10,000 or less.

03. Section 142.1-1(d)(3) of the Temporary Excise Tax Regulations under the Revenue Act of 1971, provides that with respect to articles sold after January 31, 1972, the manufacturer's gross vehicle weight rating must take into account the strength of the chassis frame, the axle capacity and placement, and the spring, brake, rim and tire capacities. The unit with the lowest rating ordinarily shall be considered determinative of the gross vehicle weight. If the capacity of any readily attachable components (spring, brakes, tires, or rims) would be otherwise determinative of a gross vehicle weight rating of 10,000 pounds or less, no readily attachable component will be taken into account in determining such rating unless the rating determined solely on the basis of the chassis frame or the total of the axle ratings is 12,000 pounds or less. For this purpose, this section of the regulations further provides that the term "total axle ratings" means the sum of the maximum load carrying capability of the axles (without regard to rims, tires, springs, and brakes) and, in the case of a trailer or semitrailer, the weight, if any, which is to be borne by a vehicle used in combination with the trailer or semitrailer for which gross vehicle weight is determined.

#### **SECTION. 3. CONCLUSION**

Upon consideration of data obtained from manufacturers in the industry, the Internal Revenue Service will, in the examination of returns with respect to semi trailers sold after January 31,

1972, accept a gross vehicle weight rating based on the sum of the axle ratings derived by the following formula:

Where x is the distance from the trailer hitch to the center of the load bed, y is the distance from the center of the load bed to the center of the axle(s) (for a tandem axle the center hangar), and z is the distance from the trailer hitch to the center of the axle(s);

Then  $y/z \times 100$  equals the percentage the weight borne by the towing vehicle is of the total of the axle ratings (or G.V.W.), and

$x/z \times 100$  equals the percentage the axle capacity is of the total of the axle ratings (or G.V.W.)

When the axle capacity is known, the total of the axle ratings (or G.V.W.) can be determined by dividing the axle capacity by the percentage it is of the total of the axle ratings (or G.V.W.)

If the total of the axle ratings of a semitrailer is 12,000 pounds or less and there is a readily attachable component that would be determinative of gross vehicle weight, the same formula for G.V.W. can be used by substituting the capacity rating of the component for the capacity rating of the axles.

For example, a tandem axle semitrailer has axles rated at 10,000 pound total capacity and wheels rated at 2,000 pounds each or 8,000 pounds for 4 wheels. It has the following dimensions:

x = 170 inches

y = 30 inches

z = 200 inches

$x/z \times 100 = 170/200 \times 100 = 85\%$

$y/z \times 100 = 30/200 \times 100 = 15\%$

The axle capacity is 85 percent of the total of the axle ratings. Thus, the total of the axle ratings is determined by dividing the 10,000 pound axle capacity by 85 percent, which results in an 11,765 pound total of the axle ratings. If there are no readily attachable components, which are determinative of gross vehicle weight, then the total of the axle ratings is the gross vehicle weight. However, since in the example here the total of the axle ratings is 12,000 pounds or less and there are readily attachable components, the capacities of such components must be considered in determining gross vehicle weight.

Substituting the wheel capacity for the axle capacity in the formula, dividing 8,000 pounds by 85 percent results in a 9,412 pound gross vehicle weight for the trailer.

In lieu of the above formula if a manufacturer can, under the regulations, establish to the satisfaction of the Service, a gross vehicle weight rating lower than that determined by using the formula, such lower rating may be used.

With respect to semitrailers sold during the period September 23, 1971, through January 31, 1972, the Service will accept any reasonable gross vehicle weight rating that a manufacturer establishes for its semitrailers.

Rev. Proc. 75-41 is superseded.