

Latin America Agricultural Equipment Statistics Committee Product Definitions and Quick Links

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FARM TRACTORS

A self-propelled wheeled or tracked machine, designed primarily to provide tractive power to pull, push, carry and/or provide power to implements designed primarily for agricultural usage. Agricultural tractors have 7.5 Kw (10hp) or more net engine horsepower per Society of Automotive Engineers Standard J1349, Engine Test Code-Spark Ignition and Diesel. (Source: ASAE Yearbook of Standards)

In addition, farm tractors have one or more of the following characteristics:

1. ASAE 3-point hitch with position control - category 1 or above
2. ASAE 540 rpm PTO, or larger, transmission (dual clutch or independent)

PTO horsepower is defined as maximum power obtained at the rated engine speed specified by the manufacturer with the governor control set for maximum power.



Two Wheel Drive Tractors (FE01)

Typically have larger tires mounted on the rear and smaller tires mounted on the front. Front wheel assist (FWA) tractors would typically incorporate larger front tires than two-wheel drive tractors. Exceptions to this definition and included in the two-wheel drive farm tractor data are the row crop tracked unit models and Orchard and Vineyard, as approved by the Agricultural Equipment Statistics Committee. The row crop tracked unit design is typically lighter, with a narrower stance and narrower track width than that of a non-row crop designed track unit and is a fixed frame tractor.

Reporting Classifications: by Advertised PTO horsepower (N chart) and Advertised Rated Engine horsepower (O chart)



Four Wheel Drive Tractor (FE22)

Further defined as a large frame machine with equal size wheels with the capability to dual/triple all wheel; equal and consistent power to all wheels; full time power to all wheels; engages primarily in heavy draft and drawbar applications normally considered to be related to farming; all wheel steer; and articulated or rigid frame. Exceptions to this definition and included in the four-wheel drive farm tractor data are the non-row crop tracked unit models. The non-row crop tracked unit design is typically heavier, with a wider stance and wider tracks than that of the row crop designed track unit and can be a fixed frame tractor.

Reporting Classifications: by Advertised Rated Engine horsepower



Baler, Rectangular (FE05)

Self-propelled or pull-type machine that compresses previously cut dried materials in a square or rectangular shaped chamber by the use of a pitman and plunger head. Contains a self-feeding device, which is mechanically operated, and timed so that when the plunger is retracted, the feeder forces the dried materials into a baling chamber. The bale is then mechanically tied by some means (i.e., twine tie or wire tie).

Reporting classifications: by measurement of the cross section of the bale or bale chamber in square feet (i.e., a 14" by 18" bale would be 1.75 square feet)



Baler, Round (FE06)

Self-propelled or pull-type machine that rolls the material (i.e., hay, grass, straw, corn stalks, etc.) into bales in a continuous stream. Material is compressed into a large round bale by belts or chains or rollers. The bale is then tied by some means (i.e., twine tie or net). The machine opens and ejects the bale from the chamber. Entries into this program must produce a bale size larger than 35 cubic feet to be considered

*Formula to calculate is $\pi * \text{radius}^2 * \text{width}$ or $3.14159 * (\text{Max Bale Diameter}/2)^2 * \text{Bale Width}$. Step by step instructions:*

- 1) *Take max. bale diameter in inches & divide by 12*
- 2) *Take bale width in inches and divide by 12*

*example: Vermeer 605 is 72" x 61". Take $72/12=6$, $61/12=5.083333$
Keep decimals.*

*Now use $\pi * \text{radius}^2 * \text{width}$ ($3.14159 * (\text{Max Bale Diameter}/2)^2 * \text{Bale Width}$)*

- 3) *Take $3.14159 * (\text{answer in step 1 divided by 2})^2$ (which is x itself)
example: (take max bale diameter first / 2) $6/2=3$. 3^2 (3 squared is $3*3=9$)*

*Now $3.14159 * 9 = 28.27431$*

- 4) *Take answer in step 3 x answer in step 2 = Max Bale size in cubic feet
Example: $28.27431 * 5.083333 = 143.72773307523$ rounded to tenth is 143.7*



Combine, Self-Propelled (FE23)

Integral engine-powered machine designed to harvest a wide variety of field grain, rice, field beans or dry peas, oil seed and grass seed crops. These machines incorporate either a crop cutting or gathering device, a threshing method, and grain holding capability. This category does not include harvesters of certain root crops.

Reporting classifications: by ISO gross engine kilowatts at rated engine speed, excluding power bursts/bulges, fans, and alternators (ISO 14396)



Self-Propelled Shear Bar Harvester (FE27)

A machine commonly known as Self-Propelled Forage Harvester, which is designed to precisely chop crops using a stationary shear bar and rotating knife cylinder. The chopped crop is ejected by an impeller through a chute into a truck or trailer. The Self-Propelled Forage Harvester can be operated with different header attachments for different crops or applications. Most common attachments are corn heads, pickup heads and direct-cut heads. In some cases, the machines may also be used with special heads for the harvest of renewable resources or biofuels like small trees and other crops.

Reporting Classifications: self-propelled models are reported as Gross Engine Horsepower. Pull-type models are based upon class of design.



Mower, Drum and Disk (FED1)

A mower which employs a series of rotating blade carriers for cutting grass, hay or forage crops. Implements may be mounted or pull-type, driven by farm tractor PTO or hydraulic system.

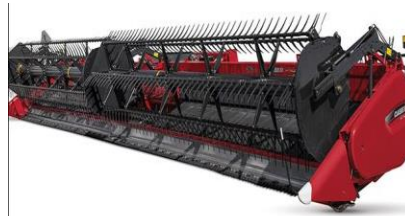
Reporting classifications: cutting width in feet end of disc to end of disc



Combine Draper Head-Flexible (FEDX)

A crop gathering unit for combines with a flexible frame, designed to collect and transfer crop into the threshing area. Cut crop is conveyed to the feeder house opening by draper-type belts.

Reporting classifications: by cutting width of crop area in feet



Combine Platform, Flexible Frame (FEPX)

A crop gathering unit for combines designed to collect and transfer crop into the threshing area while following ground contour allowing for close gathering of a crop that has grain heads or seed pods close to the ground.

Reporting classifications: by cutting width of crop area in feet



Planter, Pull Type (FE15)

A Pull type planter is a serialized frame member that supports multiple row units, and is towed via a pivoting connection at a draw bar or 2-point hitch.

Reporting classifications: by number of rows and unit design. Twin row planters will be reported as one row unit for each unit twin row. For example, a 36-twin-row unit, planting 72 rows will be reported as 36 rows.

Reporting classifications: by number of rows and unit design



Sprayer, Power (high-clearance) (FESP)

A self-propelled machine used primarily in the application of pre- and post emergent pesticides, herbicides, fungicides and fertilizers on row or solid seed crops. The chassis is designed with a minimum of 36 inch crop clearance to pass through crops without causing unacceptable damage. The chassis must be able to operate in liquid applications and can be used in dry/granular applications. For dry/granular application, the product is contained in one or more bins and may be applied accurately to the crop or ground using either a broadcast spinner spreader or pneumatic applicator equipped with booms and appropriately spaced distribution outlets. With liquid product, the solution is contained in one or more tanks and is sprayed accurately on the crop by delivering a solution through a manifold to appropriately spaced nozzles. The nozzles are at a right angle outward from both sides of the chassis, usually parallel to and set distance from the ground.

Reporting classifications: all sizes



Combine Harvester Cutting Platform, Rigid Structure(FEPR)

A unit for harvesting crops from combine harvesters designed to collect and transfer the harvest into the threshing area while maintaining some fixed space between the bottom of the platform and the ground.

Reporting classifications: by the cutting width of the crop area in feet



...(FESG)

Definition

Reporting classifications: