Determining Vehicle Load Capacity

Factors in Determining Vehicle Load Capacity

NOTE: Optional equipment or attachments that are not standard equipment, must be included when determining gross vehicle weight, and may reduce cargo box capacity.

• **Gross Vehicle Weight (GVW)** is the combination of the empty vehicle weight, payload, tongue weight, and the weight of any other kits or attachments on the vehicle.

GVW = A+B+C+D+E

• **Gross Vehicle Weight Rating (GVWR)** is the maximum permissible vehicle weight.

GVWR for gas and diesel HPX models = 1383 kg (3050 lb)

• **Payload** is the weight of all occupants plus the cargo box load. **Payload cannot exceed 635 kg (1400 lb).**

• **(A) Occupant load** is the combined weight of all occupants (operator and one passenger).

• **(B) Empty vehicle weight** is the weight of the vehicle (full fluids) without occupant(s) or load or attachments.

• 588 kg (1296 lb) - HPX Gas models

• 668 kg (1473 lb) - HPX Diesel models

• **(C) Cart tongue weight** is the weight measured if the tongue of a loaded cart was placed on a scale. The tongue weight should be approximately 10% of the total of the cart weight and the weight of its load.

• **(D) Cargo box load** is the weight of the cargo in the cargo box. **Cargo box capacity cannot exceed 454 kg (1000 lb).** It may be less depending on the weight of the occupants, attachments and the cart tongue weight.

• **Vehicle Load capacity** is the remaining amount of weight that the vehicle can haul in the cargo box and/or the additional weight from the operator, passenger, cart tongue and attachments.

• **(E) Attachment and Option weight** is the combined weight of all attachments and options that were not standard equipment. Your John Deere dealer can help you with this information.

• **(F) Cart capacity** - Refer to Towing Loads in the Operating Section.

• **Determine maximum vehicle load capacity:**

a. Calculate GVW = A+B+C+D+E

b. Subtract the Gross Vehicle Weight (GVW) from the Gross Vehicle Weight Rating (GVWR).

c. The weight difference between the two numbers is the vehicle load capacity.

Vehicle Load Capacity=GVWR-GVW

d. The Gross Vehicle Weight must be less than or equal to the Gross Vehicle Weight Rating. If GVW exceeds GVWR, remove excess weight from vehicle before operating.

Example:

The example below is for an HPX diesel vehicle with, a 350 lb cargo load, a 200 lb operator, 220 lb of attachments and options (such as a heavy duty brush guard, OPS poly roof, cargo box power lift kit, etc), towing a trailer with 50 lb of tongue weight.

(A) Operator Weight:	200 lb
(B) HPX Diesel:	1473 lb
(C) Tongue Weight:	50 lb
(D) Cargo Load:	350 lb
(E) Attachments and/or options:	220 lb

GVW = 2293 lb (200 + 1473 + 50 + 350 + 220)

Vehicle Load Capacity = GVWR (3050) less GVW (2293)

Vehicle Load Capacity = 757 lb

The remaining vehicle load capacity of 757 lb can be used to haul additional operator, passenger, cargo, cart tongue and attachment weight.