

# Load Ratings Explained

By taking these factors into account, you will be able to determine the maximum load capacity of your Yakima carrying solution and how much weight you can carry safely.



# HOW MUCH WEIGHT CAN I CARRY?

In order to determine the maximum weight that can be carried on top of your vehicle, there are several important factors that must be taken into account. These key points will be discussed in detail over the following pages.



#### Vehicle Load Ratings

Before installing any crossbars, platforms, or other products on your vehicle's roof, it is crucial to consider your vehicle's load rating, as it varies from one vehicle to another.



#### Static vs Dynamic Loads

Put simply, dynamic load ratings apply when you are driving your vehicle and there is motion, while static load ratings apply when your vehicle is stationary.



#### **Offroad Use**

We all love to get off the beaten track but we need to consider offroad use when loading up. Offroad use applies as soon as you leave sealed roads and your load rating may reduce.

# **QUICK TIP**

# Always remember to apply the lowest rating

## LOAD RATINGS

A typical Yakima carrying solution consists of:

- A vehicle roof
- A roof carrying solution

   (typically consisting of crossbars, legs
   and a vehicle specific fitting kit),
- A carrying accessory such as a roof box, kayak holder, etc.

Each of the items listed above has its own maximum load rating which dictates the heaviest load which that particular item can safely carry or hold.



#### Roof rack rated to carry 75 kg



#### Product rated to carry 75 kg



Roof rated to carry 65 kg



#### In this case, the vehicle's roof has the lowest rating (65 kg). The component with the lowest rating dictates the maximum load rating of the system.



### **BUT HOW MUCH CAN I CARRY?**

After determining the maximum load rating of your roof rack system, subtract the crossbar and product weight to calculate your remaining carrying weight. This information can be found on our website. (80 kg - 10 kg crossbar solution - 10 kg roof box = 60 kg).

# **STATIC VS DYNAMIC LOADS**

What's the difference? Dynamic load ratings apply when the vehicle is in motion, while static load ratings apply when it's stationary.

As a general rule, in a static environment, the load rating increases by a multiple of three  $(3)^{\dagger}$ . So if the dynamic load rating is 80 kg then the static load rating is 240 kg (80 kg x 3).

In the case of our tent\* scenario, with an 80 kg person you will have 100 kg left for your mattress, pillows, linen and any potential guest you wish to invite over for snacks.

(240 kg static load rating - 10 kg crossbars - 50 kg rooftop tent - 80 kg person = 100 kg).

\* While the 3x multiplier is a good rule of thumb for roof rack components and most vehicle roofs, always refer back to your vehicle manufacturer to confirm the 3x multiplier for calculating the dynamic to static load rating also applies for your particular vehicle.

\* Mounting rooftop tents on clamp mounted systems is NOT recommended and may void the warranty due to attachment method.

## **OFFROAD USE**

All load ratings are applicable for driving on well-formed sealed roads with a smooth surface. Once you start travelling on any unpaved or poorly maintained road, the maximum amount of weight you can carry may reduce depending on your roof carrying solution.

Yakima has a diverse range of carrying solutions. Each combination and configuration has specific limits and reductions. Please refer to the ratings table for further clarification.

## **ALTERNATIVE MOUNTING OPTIONS**

Not attaching the roof racks to your vehicle's roof? Don't worry, in general the same rules apply if you're attaching your rack solution to ute tubs/ trays, hard lids or canopies

Check with the manufacturer of your vehicle, tray, hard lid, or canopy to understand their offroad rating reductions and dynamic to static load increases, as this may vary by brand. Always remember to apply the lowest rating.



\*Note: extreme four wheel driving such as rock crawling is not covered by Yakima's warranty, regardless of fit type.

# **RACK SYSTEM MADE EASY**



#### **STEP 1. FIND ON-ROAD RATINGS FOR EACH OF THE FOLLOWING**

A. Your vehicle's roof

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Vehicle ratings are usually found in the manufacturer's instructions or owner's manual, which may be available on their website.

- **B.** Your crossbars or platform
- **C.** Your mounting product i.e. legs, fitting kit or spines

Always check the latest information available on our website and product instructions and contact us if you're still unsure.

A quick guide to Yakima product load ratings is listed on this page. However, this does not cover all scenarios. For example, unless otherwise stated, on-road ratings assume a 2 bar, 4 leg setup. Ratings vary for 1 and 3 bar setups.

#### **STEP 2. DETERMINE YOUR ON-ROAD RATING**

Compare the numbers from A, B and C in STEP 1 and determine the LOWEST number. This is your system's on-road rating.

#### **STEP 3. FIND YOUR OFFROAD RATING**

Using the tables provided on the following page, determine the offroad reduction for your system. Apply this reduction to LOWEST number from STEPS 1 and 2. This is your system's offroad rating.

CROSSBARS & PLATFORMS	MAX. ON-ROAD RATING
Aero ThruBar / RailBar / Flushbar JetStream / JetStream FX	75 kg
TrimHD (2 bars) Platform A, B, G, I, K, L, S & X	100 kg
TrimHD (3 bars) Platform C, D, E, H, J, N, P & U	150 kg
MOUNTING SYSTEM PRODUCTS	MAX. ON-ROAD RATING
BaseLine / BaseLine FX TimberLine / TimberLine FX LNL Raised Rail Legs Aero Legs (included with Bars)	75 kg
LNL Fixed Point & Track Legs LNL Gutter Mount Legs LNL Flush Rail Legs SkyLine / SkyLine FX SightLine / SightLine FX HD Leg Kit	100 kg
LNL RuggedLine Refer to product instructions per SKU	100 kg – 150 kg

# **OFFROAD REDUCTIONS**

#### LOAD RATINGS QUICK REFERENCE GUIDE



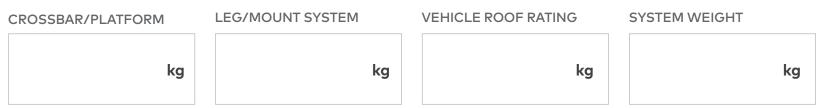
	NAKED ROOF	ROOFS WITH TRACKS	NAKED ROOF WITH FIXED POINTS	ROOFS WITH RAISED RAILS	ROOFS WITH FLUSH RAILS	ROOFS WITH GUTTERS	
YAKIMA SMARTFOOT							
PRODUCTS	Clamp Mount Kit	Track / Permanent Kit	Fixed Point Kit	Raised Rail	Flush Rail Kit	Gutter Mount Kit	
Aero ThruBar Aero FlushBar Aero RailBar TrimHD	50%	33%	33%	33%	33%	33%	
STREAMLINE							
PRODUCTS	BaseLine BaseLine FX	SkyLine SkyLine FX	SkyLine SkyLine FX	TimberLine TimberLine FX	SightLine SightLine FX	N/A	
JetStream JetStream FX	33%	33%	33%	33%	33%	N/A	
TrimHD	33%	33%	0%	0%	33%	N/A	
LOCKNLOAD							
PRODUCTS	N/A	LNL Leg & RuggedLine Track fits	Fixed Point Leg & RuggedLine	Raised Rail Leg (Platform only)	Flush Rail Leg	Gutter Mount Leg RuggedLine	
TrimHD Platforms	N/A	20%	0%	20%	33%	33%	

# LOAD RATINGS MADE EASY



Write your load rating information and follow the steps provided below to determine your system's on-road and offroad capacity. Refer to Yakima's Load Ratings Explained guide to understand what this means and keep a copy handy for future reference.

# STEP 1. Find your product and vehicle on-road ratings



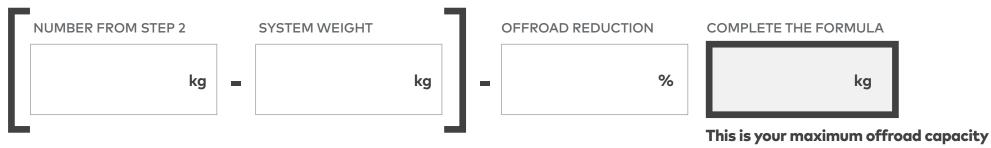
## **STEP 2.** Lowest number = system on-road rating

LOWEST NUMBER FROM STEP 1



← This is your maximum on-road capacity

# STEP 3. Apply offroad reduction



LOWEST RATING MINUS SYSTEM WEIGHT, THEN MINUS OFF-ROAD REDUCTION PERCENTAGE