

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.



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#### Vehicle maximum load ratings

Before installing any crossbars, platforms, or other products on your vehicle's roof/ute bed, it is crucial to find out your vehicle's maximum load rating, as it varies from one vehicle to another. Your vehicle's roof/ ute bed load ratings are usually found in the vehicle manufacturer's instructions or owner's manual, which may be available on their website.



#### **Product/Fit load rating**

Once checking your vehicle's load rating is suitable for the gear you wish to carry, it is important to check that you have the appropriate product and to check its own product load rating. Product load ratings may vary based on the fit type (how it attaches to the vehicle).



#### Static vs Dynamic load rating

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.

## FINDING OUT YOUR VEHICLE'S MAXIMUM LOAD RATING

The component in the Yakima carrying system with the **lowest load rating** dictates the maximum load rating of the system.

Component load rating information can be found on our website.

The Image on the right is an example of a Yakima carrying system. It consists:

#### CAR ROOF RACK AND ROOF BOX FIT EXAMPLE



Vehicle roof load rating

65 KG

A **roof carrying solution** typically consisting of a roof rack (crossbars or platform and mounting system) and a vehicle specific fitting kit



Fitting kit load rating

100 KG

A **roof carrying accessory** such as a roof box, kayak holder, etc.



In this example, the vehicle's roof has the lowest load rating. Therefore, the roof's load rating will be the maximum load rating.



# FINDING OUT THE TOTAL WEIGHT OF EACH YAKIMA CARRYING SYSTEM COMPONENT

Component weight information can be found on our website.

# SkyLine FX legs pack of 4 weight 3.68 kg - 2.42 kg





# FINDING OUT THE ON-ROAD LOAD CAPACITY?

To figure out how much you can carry (load capacity) on your Yakima carrying system, subtract the **Yakima carrying system total weight** from the **maximum load rating**.

**Maximum load rating** 

**65 kg** 

Yakima carrying system total weight

25.6 kg

MAXIMUM ON-ROAD LOAD CAPACITY

39.4 kg



4X4 PLATFORM
FIT EXAMPLE
MAXIMUM ON-ROAD
LOAD CAPACITY

Vehicle roof

Vehicle roof load rating

100 KG

**Roof carrying solution** typically consisting of a roof rack (crossbars or platform and mounting system) and a vehicle specific fitting kit

Platform load rating

150 KG

RuggedLine mounting system load rating

150 KG

**Roof carrying accessory** such as a roof box, kayak holder, etc.

NA

In this example, the vehicle's roof has the lowest load rating. Therefore, the roof's load rating will be the maximum load rating.

Vehicle roof load rating

100 KG

Platform weight

27.1 KG

+

RuggedLine weight

13.2 KG

MAXIMUM ON-ROAD LOAD CAPACITY

59.7 KG



UTE TUB
FIT EXAMPLE
MAXIMUM ON-ROAD
LOAD CAPACITY

Vehicle ute tub

Vehicle ute tub load rating

150 KG

**Ute tub carrying solution** typically consisting of crossbars/platform and mounting system with a vehicle specific fitting kit

OverHaul & HD Bars load rating

136 KG

**Ute tub carrying accessory** such as a roof box, kayak holder, etc.

NA

In this example, the ute bed carrying solution (OverHaul) has the lowest load rating. Therefore, the ute tub's load rating will be the maximum load rating.

Vehicle ute tub load rating

136 KG

-[

OverHaul weight

**27 KG** 

+

HD Bar weight

4.3 KG

=

MAXIMUM ON-ROAD LOAD CAPACITY

104.7 KG

#### DYNAMIC VS STATIC LOAD RATING

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)<sup>†</sup>. So if the dynamic load rating is 100 kg then the static load rating is 300 kg (100 kg x 3).



**DYNAMIC** 

LOAD RATING 100 KG X 3 = 300 KG LOAD RATING

STATIC







Dynamic load rating

100 KG

Carrying solution Total weight

28.6 KG

**DYNAMIC LOAD RATING LEFT FOR OTHER STUFF** 

71.4 KG

Static load rating

300 KG

Carrying solution Total weight

28.6 KG

STATIC LOAD RATING **LEFT FOR OTHER STUFF** 271.4 KG

\*When calculating dynamic to static load ratings, while the 3x multiplier is a good rule of thumb for roof rack components, most vehicle roofs & ute tubs, always refer back to your vehicle manufacturer to confirm if it applies to your specific vehicle.



#### **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 roads, 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.

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

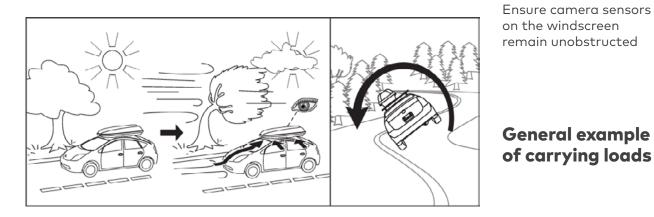


#### PROPER LOAD BALANCING FOR ROOF RACKS, TUB RACKS, AND PLATFORMS

When utilising a roof rack, platform, or tub rack, it is imperative to adhere to the specified load rating guidelines. This ensures the safety of vehicle occupants and other road users and helps to prevent damage to the vehicle and its mounting systems.

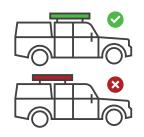
#### **Recommended Loading Practices**

- Ensure all cargo is evenly distributed across the rack or platform to maintain vehicle stability.
- Use approved securing methods, such as high-quality tie-down straps and hood anchors, to fasten loads securely to the vehicle.
- Verify and adhere to the manufacturer's dynamic (in-motion) and static (stationary) load ratings. Do not exceed these limits under any circumstances.
- Adapt driving behaviour according to conditions:
  - In high-wind scenarios or when carrying long or overhanging items, reduce vehicle speed accordingly.
  - When driving in off-road or rough terrain environments, lower speeds to match the terrain and minimise stress on the mounting system.



#### Example of correct & incorrect loading of large heavy items such as a Roof Top Tent







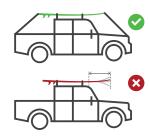
#### Example of correct & incorrect loading of Kayaks, Surf boards and/or SUPs

As good practice always secure with bow & stern tie downs to vehicle recovery points or using a Yakima Hood Anchor.

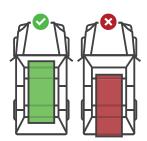
Warranty will be void if the front of your overhanging load is not secured correctly

Ensure camera sensors on the windscreen remain unobstructed









#### YAKIMA CARRYING SYSTEM ON-ROAD PRODUCT LOAD RATING



The product load rating defines the maximum weight Yakima's product can support and is distinct from the vehicle's roof load rating. Refer to the owner's manual to verify vehicle roof load limits. The lowest load rating dictates the maximum load rating.

PRODUCT	MAX. ON-ROAD PRODUCT LOAD RATING			
CROSSBARS & PLATFORMS				
Aero ThruBar / RailBar / Flushbar	- 75 kg			
JetStream / JetStream FX				
TrimHD (2 bars) Platform A, B, G, I, K, L, S & X	100 kg			
TrimHD (3 bars) Platform C, D, E, H, N, P & U	150 kg			
LEGS / MOUNTING SYSTEM PRODUCTS				
BaseLine / BaseLine FX	75 kg			
TimberLine FX	/5 kg			
TimberLine				
SkyLine / SkyLine FX				
SightLine / SightLine FX				
HD Leg Kit				
TrackTower	100 kg			
LNL Fixed Point & Track Legs				
LNL Gutter Mount Legs				
LNL Flush Rail Legs				
LNL RuggedLine (Refer to product instructions per SKU)	100 kg - 150 kg			
Overhaul / OutPost / BedRock with HD Bars (2 Bars)	Up to 227 kg			

When considering a roof rack/platform or ute tub rack it is important to consider the fit type and the type of use it may be used for, whether this is on-road or offroad use, some fit types are better suited to particular uses.

#### **IMPORTANT!**



## ROOF TOP TENT RESTRICTIONS

Yakima does not advise the fitment of roof top tents onto clamp mounts unless otherwise specified as approved by Yakima. We also advise not to fit roof top tents onto Yakima SmartFoot "K" kits for flush rail and permanent mount fitting kits. Yakima has evaluated these fit types and found them to be at risk of damaging the vehicle or personal injury. Warranty will be void for claims arising as a result.

To learn more about using roof top tents with Yakima roof racks, check out our **Yakima Roof Top Tent Compatibility Guide** by scanning this QR code.



#### **OFFROAD REDUCTIONS**

Load ratings quick reference guide for top of car



	NAKED ROOF	ROOFS WITH TRACKS	NAKED ROOF WITH FIXED POINTS	ROOFS WITH RAISED RAILS	ROOFS WITH FLUSH RAILS	ROOFS WITH GUTTERS	CUSTOM TRACKS	
YAKIMA SMARTFOOT								
PRODUCTS	Clamp Mount Kit	Track / Permanent Kit	Fixed Point Kit	Raised Rail	Flush Rail Kit	Gutter Mount Kit (K324)	Track	
Aero ThruBar				33%	33%	33%	33%	
Aero FlushBar	50%	33% 33%						
Aero RailBar			33%					
TrimHD								
STREAMLINE								
PRODUCTS	BaseLine BaseLine FX	SkyLine SkyLine FX	SkyLine SkyLine FX	TimberLine TimberLine FX	SightLine SightLine FX	N/A	TrackTowers	
JetStream	33%							
JetStream FX		33%	33%	33%	33%	N/A	33%	
TrimHD	33%	33%	0%	33%	33%	N/A	0%	
Platforms	N/A	33%	33%	33%	N/A	N/A	0%	
LOCKNLOAD								
PRODUCTS	N/A	MK1 & MK2 Track Fits & RuggedLine Track Fit	MK1 & MK2 Fixed Point Leg Fit & RuggedLine	Timberline	Flush Rail Leg	Gutter Mount Leg RuggedLine	RuggedLine HD	
TrimHD	N/A	200/	00/	220/	220/	220/	0%	
Platforms		20%	0%	33%	33%	33%	0%	

#### FINDING OUT THE MAXIMUM OFFROAD LOAD CAPACITY



Follow the steps provided below to determine your Yakima carrying system's maximum offroad capacity.

1

Scan the QR CODE, this will lead you to the FIND MY CAR section of our website.

- 1.1 Search for your specific vehicle.
- 1.2 Select your Yakima carrying system.
- 1.3 After selecting your vehicle and your Yakima carrying system, the website will show you important information about your Yakima carrying system configuration including your **LOAD RATING** and **MOUNT TYPE**. Remember your **LOAD RATING** and **MOUNT TYPE** and head on to the **OFFROAD REDUCTIONS** page of this document.
- 1.5 Look for your Yakima carrying system with your specific **MOUNT TYPE** in the chart.



below. The lowest weight that you listed will be your maximum on-road capacity.

2

VEHICLE ROOF / UTE TUB LOAD RATING (SEE VEHICLE MANUFACTURER'S MANUAL)

kg

CROSSBAR / PLATFORM LOAD RATING

kg

LEG/MOUNT SYSTEM LOAD RATING
(SEE YAKIMA CARRYING SYSTEM
ON-ROAD LOAD RATING PAGE)

kg

ROOF / UTE TUB CARRYING SOLUTION + CARRYING ACCESSORY TOTAL WEIGHT

kg

To calculate your maximum offroad capacity, first, subtract the ute tub carrying solution + carrying accessory total weight to your maximum on-road capacity. After that, subtract the offroad reduction percentage.

Find each of your Yakima carrying system on-road load ratings and Yakima carrying system total weight and list it down

3



## SUV PLATFORM FIT EXAMPLE MAXIMUM OFFROAD LOAD CAPACITY

Find each of your Yakima carrying system on-road load ratings and Yakima carrying system total weight.

The <u>lowest weight</u> that you listed below will be your maximum on-road capacity.

VEHICLE ROOF LOAD RATING

(SEE VEHICLE MANUFACTURER'S MANUAL)

100 kg

LEG/MOUNT SYSTEM LOAD RATING (SEE YAKIMA CARRYING SYSTEM ON-ROAD LOAD RATING PAGE)

100 kg

CROSSBAR / PLATFORM LOAD RATING

100 kg

ROOF CARRYING SOLUTION + CARRYING ACCESSORY TOTAL WEIGHT

36.6 kg



To calculate your maximum <u>offroad</u> capacity, first, subtract the <u>roof carrying solution + carrying accessory total weight</u> to your maximum on-road capacity. After that, subtract the offroad reduction percentage.

MAXIMUM
ON-ROAD CAPACITY

100 kg

ROOF CARRYING SOLUTION
+ CARRYING ACCESSORY TOTAL WEIGHT

36.6 kg

OFFROAD REDUCTIONS

33 %

MAXIMUM OFFROAD LOAD CAPACITY

42.47 kg