



SPECIALIZED BICYCLE OWNER'S MANUAL

APPENDIX A SUPPLEMENT

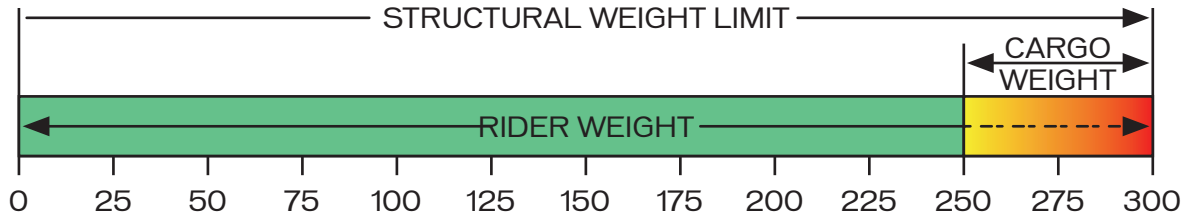
**2016 RIDER/BIKE WEIGHT LIMITS
AND TERRAIN CONDITIONS**



INTRODUCTION

This Appendix A manual supplement is designed as an annual addition to the Appendix A section found in the Specialized Bicycle Owner's Manual. This appendix is designed to help the rider determine if a bike is suitable for the intended use and the combined Rider Weight and Cargo Weight.

Each bike model has an intended use and is designed and tested to support a Structural Weight Limit, which includes a Cargo Weight Limit. As the weight of the rider approaches the Structural Weight Limit of the bike, the allowable Cargo Weight might be reduced. For example, a bike may have a 55lb Cargo Weight Limit, but if the weight of the rider is too close to the bike's Structural Weight Limit, the rider may only be allowed to carry a smaller amount of cargo or no cargo at all. See following page for model-specific example and graphs.



UNDERSTANDING WEIGHT LIMITS

FRAME STRUCTURAL WEIGHT LIMITS

Structural Weight Limits for each bike are determined by Specialized Bicycles through extensive lab testing, and are listed in the Bike Model, Structural Weight Limit and Cargo Weight Limit Tables.

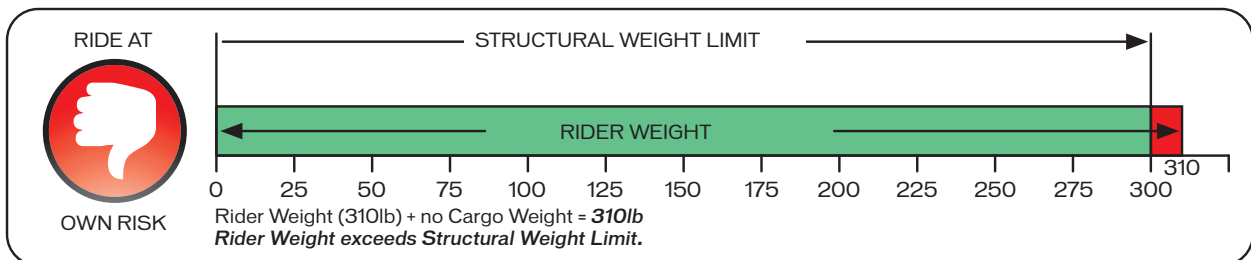
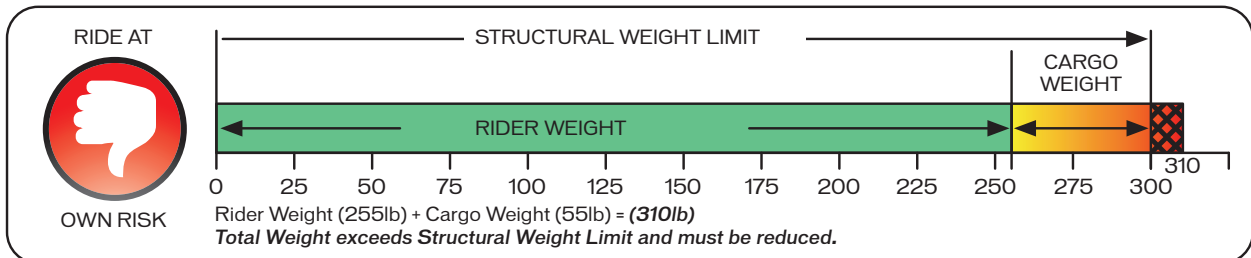
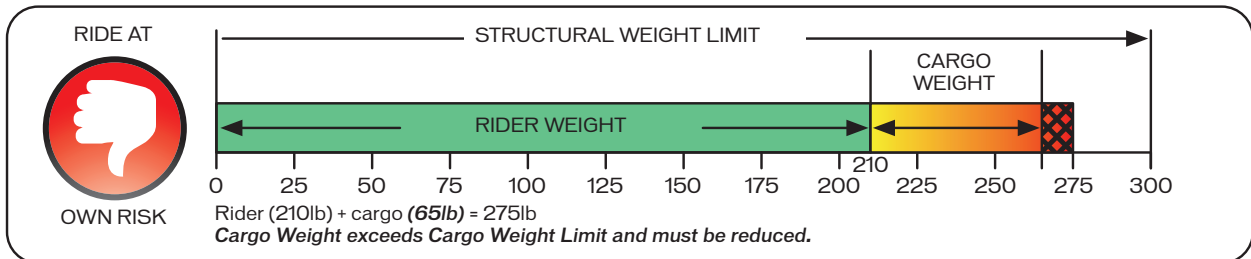
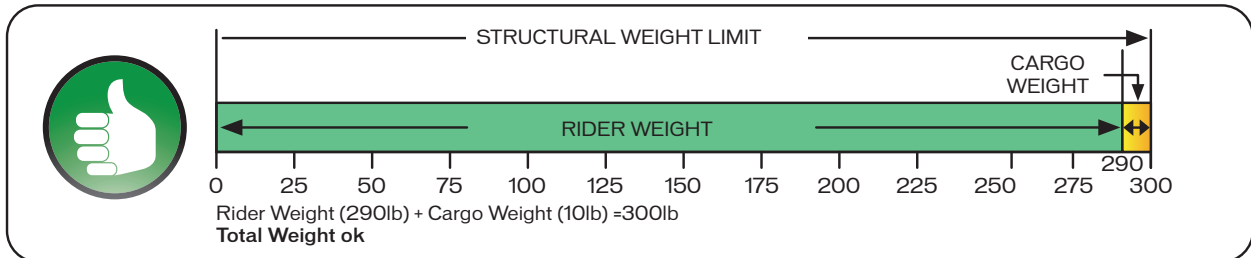
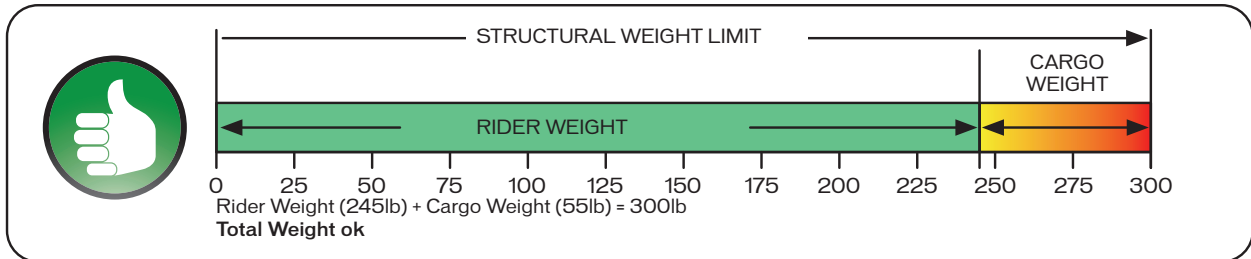
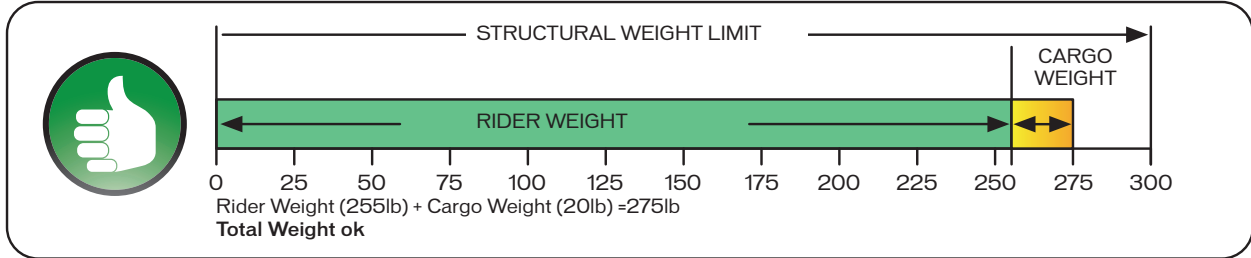
	STRUCTURAL WEIGHT LIMIT	The maximum Total Weight (rider and cargo) a bike is designed and tested to support structurally.
	RIDER WEIGHT	The weight of the rider in riding gear (e.g., jacket, helmet cam, hydration pack, helmet, etc.).
	CARGO WEIGHT	The weight of any additional accessories (e.g., panniers, front/rear racks, saddle bags, handlebar bags, baskets, etc.) not accounted for in Rider Weight .
	CARGO WEIGHT LIMIT	The maximum Cargo Weight a bike has been designed and tested to support structurally.
	TOTAL WEIGHT	The sum of Rider Weight and Cargo Weight .

WARNING! Failure to follow these instructions and exceeding the specified **Structural Weight** and **Cargo Limits** may impair the structural integrity of the bicycle and may cause serious personal injury or death. For riders at the **Rider Weight Limit**, you may not be able to carry cargo if the **Structural Weight Limit** is exceeded.

DETERMINING MAXIMUM STRUCTURAL WEIGHT LIMITS

1. Determine the bike model in the Structural Weight Limit Table (see page 6).
2. Look up the Structural Weight and Cargo Weight Limits of the bike model.
3. Determine the Rider Weight, which includes all riding gear.
4. Determine the Cargo Weight, which includes the weight of any additional accessories.
5. Subtract the Rider Weight from the Structural Weight Limit. The result is the amount the rider is allowed for Cargo Weight, up to the Cargo Weight Limit prescribed for the bike model.

EXAMPLE: HARDROCK (Structural Weight Limit = 300lb / 136kg. Cargo Weight Limit = 55lb / 25kg)



INTENDED USE OF YOUR BICYCLE

⚠ WARNING: Understand your bike and its intended use. Choosing the wrong bicycle for your purpose can be hazardous. Using your bike the wrong way is dangerous.

No single type of bicycle is suited for all purposes. Your retailer can help you pick the “right tool for the job” and help you understand its limitations. There are many types of bicycles and many variations within each type. There are many types of mountain, road, racing, hybrid, touring, cyclocross and tandem bicycles.


There are also bicycles that mix features. For example, there are road/racing bikes with triple cranks. These bikes have the low gearing of a touring bike, the quick handling of a racing bike, but are not well suited for carrying heavy loads on a tour, for which, you want a touring bike.

Within each of type of bicycle, one can optimize the bicycle for certain purposes. Visit your bicycle shop and find someone with expertise in the area that interests you. Do your own homework. Seemingly small changes such as the choice of tires can improve or diminish the performance of a bicycle for a certain purpose.

On the following pages, we generally outline the intended uses of all bike types and we specify the Structural Weight Limit by bike family/model.

Industry usage conditions are generalized and evolving. Consult your dealer about how you intend to use your bike.


HIGH-PERFORMANCE ROAD

 <p>1 For riding on pavement only</p>	CONDITION 1	Bikes designed for riding on a paved surface where the tires do not lose ground contact.
	INTENDED	To be ridden on paved roads only.
	NOT INTENDED	For off-road, cyclocross, or touring with racks or panniers.
	TRADE OFF	Material use is optimized to deliver both light weight and specific performance. You must understand that (1) these types of bikes are intended to give an aggressive racer or competitive cyclist a performance advantage over a relatively short product life, (2) a less aggressive rider will enjoy longer frame life, (3) you are choosing light weight (shorter frame life) over more frame weight and a longer frame life, (4) you are choosing light weight over more dent resistant or rugged frames that weigh more. All frames that are very light need frequent inspection. These frames are likely to be damaged or broken in a crash. They are not designed to take abuse or be a rugged workhorse. See also Appendix B.

BIKE MODELS

- Allez
- Alias
- Amira
- Dolce
- Langster
- Roubaix
- Ruby
- Shiv
- Shiv TT
- Tarmac
- Venge


GENERAL PURPOSE RIDING

 <p>2 For riding on improved paths and roadways only No jumping</p>	CONDITION 2	Bikes designed for riding Condition 1, plus smooth gravel roads and improved trails with moderate grades where the tires do not lose ground contact.
	INTENDED	For paved roads, gravel or dirt roads that are in good condition, and bike paths.
	NOT INTENDED	For off-road or mountain bike use, or for any kind of jumping. Some of these bikes have suspension features, but these features are designed to add comfort, not off-road capability. Some come with relatively wide tires that are well suited to gravel or dirt paths. Some come with relatively narrow tires that are best suited to faster riding on pavement. If you ride on gravel or dirt paths, carry heavier loads or want more tire durability talk to your dealer about wider tires.

BIKE MODELS

- Ariel
- AWOL
- Crossover
- Crossroads
- Crosstrail
- Daily
- Diverge
- Expedition
- Roll
- Sirrus
- Source
- Turbo
- Vita

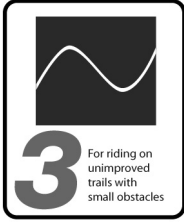
CYCLO-CROSS

 <p>2 For riding on improved paths and roadways only No jumping</p>	CONDITION 2	Bikes designed for riding Condition 1, plus smooth gravel roads and improved trails with moderate grades where the tires do not lose ground contact.
	INTENDED	For cyclo-cross riding, training and racing. Cyclo-cross involves riding on a variety of terrain and surfaces including dirt or mud surfaces. Cyclo-cross bikes also work well for all weather rough road riding and commuting.
	NOT INTENDED	For off road or mountain bike use, or jumping. Cyclo-cross riders and racers dismount before reaching an obstacle, carry their bike over the obstacle and then remount. Cyclo-cross bikes are not intended for mountain bike use. The relatively large road bike size wheels are faster than the smaller mountain bike wheels, but are not as strong.

BIKE MODELS

- CruX


CROSS-COUNTRY, MARATHON, HARDTAILS

	CONDITION 3	Bikes designed for riding Conditions 1 and 2, plus rough trails, small obstacles, and smooth technical areas, including areas where momentary loss of tire contact with the ground may occur. NOT for jumping. All mountain bikes without rear suspension are Condition 3, as well as some lightweight rear suspension models.
	INTENDED	For cross-country riding and racing which ranges from mild to aggressive over intermediate terrain (e.g., hilly with small obstacles like roots, rocks, loose surfaces, hard pack and depressions). Cross-country and marathon equipment (tires, shocks, frames, drive trains) are light-weight, favoring nimble speed over brute force. Suspension travel is relatively short since the bike is intended to move quickly on the ground.
	NOT INTENDED	For Hardcore Freeriding, Extreme Downhill, Dirt Jumping, Slopestyle, or very aggressive or extreme riding. Not for spending time in the air, landing hard and hammering through obstacles.
	TRADE OFF	Cross-Country bikes are lighter, faster to ride uphill, and more nimble than All-Mountain bikes. Cross-Country and Marathon bikes trade off some ruggedness for pedaling efficiency and uphill speed.

BIKE MODELS

- Crave
- Epic FSR
- Era FSR
- Fatboy
- Fate
- Fuse
- Hardrock
- Hellga
- Jett
- Jynx
- Levo HT
- Myka
- Pitch
- Rockhopper
- Ruze
- SJ HT



ALL MOUNTAIN

	CONDITION 4	Bikes designed for riding Conditions 1, 2, and 3, plus rough technical areas, moderately sized obstacles, and small jumps.
	INTENDED	For trail and uphill riding. All-Mountain bicycles are: (1) more heavy duty than cross country bikes, but less heavy duty than Freeride bikes, (2) lighter and more nimble than Freeride bikes, (3) heavier and have more suspension travel than a cross country bike, allowing them to be ridden in more difficult terrain, over larger obstacles and moderate jumps, (4) intermediate in suspension travel and use components that fit the intermediate intended use, (5) cover a fairly wide range of intended use, with models that are more or less heavy duty. Talk to your retailer about your needs and these models.
	NOT INTENDED	For use in extreme forms of jumping/riding such as hardcore mountain, Freeriding, Downhill, North Shore, Dirt Jumping, Huckling etc. Not for large drop offs, jumps or launches (wooden structures, dirt embankments) requiring long suspension travel or heavy duty components; and not for spending time in the air landing hard and hammering through obstacles.
	TRADE OFF	All-Mountain bikes are more rugged than cross country bikes, for riding more difficult terrain. All-Mountain bikes are heavier and harder to ride uphill than cross country bikes. All-Mountain bikes are lighter, more nimble and easier to ride uphill than Freeride bikes. All-Mountain bikes are not as rugged as Freeride bikes and must not be used for more extreme riding and terrain.

BIKE MODELS

- Camber FSR
- Enduro FSR
- Rhyme FSR
- Rumor FSR
- Stumpjumper FSR
- Levo FSR


GRAVITY, FREERIDE AND DOWNHILL

	CONDITION 5	Bikes designed for jumping, hucking, high speeds, or aggressive riding on rougher surfaces, or landing on flat surfaces. However, this type of riding is extremely hazardous and puts unpredictable forces on a bicycle which may overload the frame, fork, or parts. If you choose to ride in Condition 5 terrain, you should take appropriate safety precautions such as more frequent bike inspections and replacement of equipment. You should also wear comprehensive safety equipment such as a full-face helmet, pads, and body armor.
	INTENDED	For riding that includes the most difficult terrain that only very skilled riders should attempt. Gravity, Freeride, and Downhill are terms which describe hardcore mountain, north shore, slopestyle. This is "extreme" riding and the terms describing it are constantly evolving. Gravity, Freeride, and Downhill bikes are: (1) heavier and have more suspension travel than All-Mountain bikes, allowing them to be ridden in more difficult terrain, over larger obstacles and larger jumps, (2) the longest in suspension travel and use components that fit heavy duty intended use. There is no guarantee that extreme riding will not break a Freeride bike.  The terrain and type of riding that Freeride bikes are designed for is inherently dangerous. Appropriate equipment, such as a Freeride bike, does not change this reality. In this kind of riding, bad judgment, bad luck, or riding beyond your capabilities can easily result in an accident, where you could be seriously injured, paralyzed or killed.
	NOT INTENDED	To be an excuse to try anything. Read Section 2. F of the Bicycle Owner's Manual..
	TRADE OFF	Freeride bikes are more rugged than All-Mountain bikes, for riding more difficult terrain. Freeride bikes are heavier and harder to ride uphill than All-Mountain bikes.

BIKE MODELS

- Demo FSR
- Status FSR


DIRT JUMP

	CONDITION 5	Bikes designed for jumping, hucking, high speeds, or aggressive riding on rougher surfaces, or landing on flat surfaces. However, this type of riding is extremely hazardous and puts unpredictable forces on a bicycle which may overload the frame, fork, or parts. If you choose to ride in Condition 5 terrain, you should take appropriate safety precautions such as more frequent bike inspections and replacement of equipment. You should also wear comprehensive safety equipment such as a full-face helmet, pads, and body armor.
	INTENDED	For man-made dirt jumps, ramps, skate parks other predictable obstacles and terrain where riders need and use skill and bike control, rather than suspension. Dirt Jumping bikes are used much like heavy duty BMX bikes. A Dirt Jumping bike does not give you skills to jump. Read Section 2. F of the Bicycle Owner's Manual.
	NOT INTENDED	For terrain, drop offs or landings where large amounts of suspension travel are needed to help absorb the shock of landing and help maintain control.
	TRADE OFF	Dirt Jumping bikes are lighter and more nimble than Freeride bikes, but they have no rear suspension and the suspension travel in the front is much shorter.

BIKE MODELS

- P.Series


KIDS

	CONDITION 6	<p>Bikes designed to be ridden by children. Parental supervision is required at all times. Avoid areas involving automobiles, and obstacles or hazards including inclines, curbs, stairs, sewer grates or areas near drop-offs or pools.</p> <p>The Hotwalk Owner's Manual is available as a separate document, supplied with the Hotwalk bikes</p>
---	--------------------	---

BIKE MODELS

- Hotrock
- Hotwalk


STRUCTURAL WEIGHT LIMITS

BIKE MODEL		WEIGHT LIMITS (see page 8 for details)			
			CARGO		STRUCTURAL
		CATEGORY (See Intended Use, page 3)			
FAMILY	MODEL		REAR (lb/kg)*	FRONT (lb/kg)*	(lb/kg)
Alias	All models	1	5 / 2.3	0 / 0	240 / 109
Allez	Sprint Specialized Edition, SL Expert, Sprint Expert, Sprint Comp	1	30 / 14	0 / 0	240 / 109
	Base, Sport, Elite, SL Comp, JR (650c)	1	30 / 14	0 / 0	275 / 125
Amira	All models	1	5 / 2.3	0 / 0	240 / 109
Ariel	All models	2	55 / 25	0 / 0	300 / 136
AWOL	All models	2	55 / 25	30 / 14	300 / 136
Camber FSR	S-Works, Expert, Elite	4	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	4	5 / 2.3	0 / 0	275 / 125
	Grom, Comp, Base	4	5 / 2.3	0 / 0	300 / 136
Crave	Expert, Comp, Base	3	30 / 14	0 / 0	300 / 136
	SL	3	30 / 14	0 / 0	275 / 125
Crossover	All models	2	55 / 25	0 / 0	300 / 136
Crossroads	Elite	2	55 / 25	30 / 14	275 / 125
	Sport, Base	2	55 / 25	30 / 14	300 / 136
CrossTrail	All models	2	55 / 25	0 / 0	300 / 136
CruX	S-Works, Pro Race, Expert, Expert EVO, EVO, Elite	2	5 / 2.3	0 / 0	240 / 109
	Single E5	2	30 / 14	0 / 0	240 / 109
	Elite	2	5 / 2.3	0 / 0	275 / 125
	Sport, Base	2	30 / 14	0 / 0	275 / 125
Daily	All models	2	55 / 25	30 / 14	300 / 136
Demo 8	S-Works Carbon	5	5 / 2.3	0 / 0	300 / 136
	I Carbon	5	5 / 2.3	0 / 0	275 / 125
	I Alloy, II Alloy	5	5 / 2.3	0 / 0	240 / 109
Diverge	Comp, Expert, Pro	2	55 / 25	30 / 14	240 / 109
	Elite	2	55 / 25	30 / 14	275 / 125
	Sport, Base	2	55 / 25	0 / 0	275 / 125
Dolce	Comp, Comp EVO	1	55 / 25	0 / 0	240 / 109
	Elite, Sport, Base	1	55 / 25	0 / 0	275 / 125
Enduro FSR	S-Works, Pro Carbon, Expert EVO, Expert Carbon	4	5 / 2.3	0 / 0	240 / 109
	Elite, Comp, EVO	4	5 / 2.3	0 / 0	300 / 136
Epic FSR	S-Works, Pro Carbon, Expert Carbon, Elite Carbon	3	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	3	5 / 2.3	0 / 0	275 / 125
	Comp	3	5 / 2.3	0 / 0	300 / 136
Era	S-Works, Expert Carbon	3	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	3	5 / 2.3	0 / 0	275 / 125
Expedition	All models	2	55 / 25	0 / 0	300 / 136
Fatboy	S-Works, Expert	3	55 / 25	0 / 0	240 / 109
	Comp Carbon, Comp, Base	3	55 / 25	0 / 0	275 / 125
	Pro Trail, SE	3	55 / 25	0 / 0	300 / 136
	Trail, 24, 20	3	30 / 14	0 / 0	300 / 136
Fate	S-Works, Expert Carbon	3	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	3	5 / 2.3	0 / 0	275 / 125
	Comp, Elite	3	30 / 14	0 / 0	300 / 136
Fuse	All models	3	30 / 14	0 / 0	300 / 136
Hardrock	All models	3	55 / 25	0 / 0	300 / 136

BIKE MODEL			WEIGHT LIMITS (see page 8 for details)		
			CARGO		STRUCTURAL
		CATEGORY (See Intended Use, page 3)	 lb / kg	 lb / kg	
FAMILY	MODEL		REAR (lb/kg)*	FRONT (lb/kg)*	(lb/kg)
Hellga	Comp, Expert	3	30 / 14	0 / 0	275 / 125
	Base	3	30 / 14	0 / 0	300 / 136
Hotrock	Hotwalk boy/girl	6	0 / 0	0 / 0	40 / 18
	Hotrock 12" / 16"	6	30 / 14	0 / 0	100 / 45
	Hotrock 20" (all models except Hotrock 20 Pro)	6	30 / 14	0 / 0	220 / 100
	Hotrock 24 (all models), Hotrock 20 Pro	6	55 / 25	0 / 0	220 / 100
Jett	All models	3	55 / 25	0 / 0	300 / 136
Jynx	All models	3	55 / 25	0 / 0	300 / 136
Langster	Pro	1	30 / 14	0 / 0	240 / 109
	Rio, Street, Base	1	30 / 14	0 / 0	275 / 125
Levo	S-Works FSR, Expert FSR	4	5 / 2.3	0 / 0	240 / 109
	Comp FSR	4	5 / 2.3	0 / 0	300 / 136
	HT Comp, HT 29, HT Comp Fat	3	30 / 14	0 / 0	300 / 136
Myka HT	All models	3	55 / 25	0 / 0	300 / 136
P.Series	All models	5	0 / 0	0 / 0	300 / 136
Pitch	All models	3	55 / 25	0 / 0	300 / 136
Rhyme FSR	Expert Carbon, Expert Carbon 6Fattie	4	5 / 2.3	0 / 0	240 / 109
	Comp Carbon, Comp Carbon 6Fattie	4	5 / 2.3	0 / 0	275 / 135
	Comp, Comp 6Fattie	4	5 / 2.3	0 / 0	300 / 136
Rockhopper	All models	3	55 / 25	0 / 0	300 / 136
Roll	All models	2	55 / 25	30 / 14	300 / 136
Roubaix	All models	1	5 / 2.3	0 / 0	240 / 109
Ruby	All models	1	5 / 2.3	0 / 0	240 / 109
Rumor FSR	Expert, Elite	4	5 / 2.3	0 / 0	240 / 109
	Comp, Base	4	5 / 2.3	0 / 0	300 / 136
Ruze	All models	3	30 / 14	0 / 0	300 / 136
Shiv	All models	1	5 / 2.3	0 / 0	240 / 109
Sirrus	Pro Carbon, Expert Carbon, Comp Carbon	2	5 / 2.3	0 / 0	240 / 109
	Elite Carbon	2	5 / 2.3	0 / 0	275 / 125
	Comp, Elite Disc	2	30 / 14	0 / 0	300 / 136
	Elite, Sport, Base	2	30 / 14	30 / 14	300 / 136
SJ FSR	S-Works, Pro Carbon, Expert Carbon, Elite	4	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	4	5 / 2.3	0 / 0	275 / 125
	Comp	4	5 / 2.3	0 / 0	300 / 136
SJ HT	S-Works, Pro Carbon, Expert Carbon, Elite Carbon	3	5 / 2.3	0 / 0	240 / 109
	Comp Carbon	3	5 / 2.3	0 / 0	275 / 125
	Comp	3	30 / 14	0 / 0	300 / 136
Source	Expert Carbon, Comp, Eleven, Eight	2	55 / 25	0 / 0	275 / 125
	Elite, Sport, Base	2	55 / 25	30 / 14	300 / 136
Status FSR	All models	5	5 / 2.3	0 / 0	300 / 136
Tarmac	All models	1	5 / 2.3	0 / 0	240 / 109
Turbo	All Models	2	55 / 25	30 / 14	300 / 136
Venge	All Models	1	5 / 2.3	0 / 0	240 / 109
Vita	Comp Carbon, Expert Carbon	2	55 / 25	0 / 0	240 / 109
	Elite Carbon	2	55 / 25	0 / 0	275 / 125
	Comp, Elite Disc	2	55 / 25	0 / 0	300 / 136
	Elite, Sport, Base	2	55 / 25	30 / 14	300 / 136


STRUCTURAL WEIGHT LIMITS

300lb / 136Kg
All alloy mountain bikes without carbon rigid fork
All flat bar equipped alloy hybrid / city bikes without carbon fork
275lb / 125Kg
All drop bar equipped carbon or alloy road bikes
All carbon or alloy cyclocross bikes
All carbon or alloy triathlon / aero / time trial bikes
All flat bar equipped carbon hybrid / city bikes
All flat bar equipped alloy hybrid / city bikes with carbon fork
All carbon mountain bikes
All alloy mountain bikes with carbon rigid fork
240lb / 109Kg
All bikes with weight-bearing Specialized-branded carbon components or Roval wheelsets (complete wheelsets with Roval-branded rims and hubs)
220lb / 100Kg
All 24" and 20" Kids bikes with pedals
100lb / 45Kg
All 16" and 12" Kids bikes with pedals
40lb / 18Kg
All kids walking bikes (no pedals)

 **WARNING!** The Structural Weight Limit for your bicycle is only as high as the item (bicycle or component) with the lowest Structural Weight Limit. The Structural Weight Limit for Roval wheels (complete wheelsets - Roval branded rims and hubs) and/or any weight-bearing Specialized-branded carbon components (including, but not limited to, handlebar, seatpost, stem, crank, saddle, rim, etc.) installed on any brand bike is 240lb (109Kg). Failure to follow this warning may result in serious personal injury or death. This does not apply to non-weight-bearing Specialized-branded carbon components (including, but not limited to, brake levers, chainrings, bottle cages, etc.).

CARGO WEIGHT LIMITS*

55lb / 25Kg	
All frames with built-in rear rack mounts	A rear rack with cargo (max 55lb / 25Kg) and/or seat bag (max 5lb / 2.3Kg) can be installed and loaded up to a total combined maximum weight of 55lb / 25Kg.
30lb / 14Kg	
All alloy frames without built-in (original equipment) rear rack mounts.	A rear rack (with the use of separate rack mount clips) with cargo (max 30lb / 14Kg) and/or seat bag (max 5lb / 2.3Kg) can be installed and loaded up to a total combined maximum weight of 30lb / 14Kg.
All forks with built-in front rack mounts.	A front rack with cargo can be installed and loaded up to a total maximum of 30lb / 14Kg.
5lb / 2.3Kg	
All carbon frames without built-in rear rack mounts	Cargo capacity is limited to a seat bag.
All full suspension frames (except P.Slope)	Cargo capacity is limited to a seat bag.
0lb / 0Kg	
All P.Series bikes	No cargo permitted.
All kids walking bikes (no pedals)	No cargo permitted.
All forks without built-in front rack mounts	No cargo permitted.

 **WARNING!** The specified Cargo Weight Limit applies only to compatible front and rear racks and seat bags where indicated. In case the specified Cargo Weight Limit differs from the cargo weight limit specified by the rack or seat bag manufacturer, always use the lowest limit. If you add any other load-bearing accessories, including, but not limited to, baskets and child carriers, you do so at your own risk in that these accessories have not been tested for compatibility, reliability or safety on your bicycle. Failure to follow this warning may result in serious personal injury or death.

Recommended Structural Weight Limits are based on International Standards Organization (ISO) 4210 testing standards (for cargo and rider only).

SPECIALIZED BICYCLE COMPONENTS

15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229
0000057489_OM_EN R3, 11/15

Please note all instructions are subject to change and updates without notice.
Please visit www.specialized.com for periodic tech updates.
Feedback: techdocs@specialized.com