

**Links to
INDIVIDUAL BROCHURES**
(Which contain guideline prices)

THORN DERAILLEUR BIKES

LINKS NOW COMPLETE
but still work to do on some of
the brochures. *AB 17/12/2019*

BUILDS 1a and 1b NOMAD Mk3 26" (Derailleur drops or straight bars)

**WAITING FOR
REPLACEMENT
BATCH OF
26" RIM BRAKE
FORKS**

Affordable
Bomb-Proof,
day to day
cycling and
Expedition
Touring.

[CLICK HERE](#) for
LINK to BUILDS 1a and 1b

BUILDS 2a and 2b NOMAD Mk3 650b (Derailleur drops or straight bars)



A superb
Adventure bike,
Monster
Gravel Bike or
European Tourer

[CLICK HERE](#) for
LINK to BUILDS 2a and 2b

BUILDS 3a and 3b CLUB TOUR Mk5 650b (Derailleur drops or straight bars)



A superb, sporty
Gravel Bike and a
super comfortable
bike for cyclists at
every level of
ability on today's
broken roads.

[CLICK HERE](#) for
LINK to BUILDS 3a and 3b

BUILDS 4a and 4b CLUB TOUR Mk5 700c (Derailleur drops or straight bars)



Our modern
take on a
versatile
Traditional
Touring Bike.

[CLICK HERE](#) for
LINK to BUILDS 4a and 4b

BUILDS 10a to 10e AUDAX Mk4 700c (Derailleur and drop bars only)



Our iconic,
lightweight steel
framed bike
now has disc
brake options.

[CLICK HERE](#) for
LINK to BUILDS 10a to 10e

Links to INDIVIDUAL BROCHURES

(Which contain guideline prices)

THORN ROHLOFF BIKES

LINKS NOW COMPLETE
but still work to do on some of
the brochures. AB 17/12/2019

BUILDS 5a and 5b NOMAD Mk3 26"

(Rohloff straight bars or drops)

**WAITING FOR
REPLACEMENT
BATCH OF
26" RIM BRAKE
FORKS**

Rohloff reliability and
functionality + our
superb steel frame
make this the
DEFINITIVE
Expedition Tourer and
genuinely green,
multi-purpose
transport.

[CLICK HERE](#) for
LINK to BUILDS 5a and 5b

BUILDS 6a and 6b NOMAD Mk3 650b

(Rohloff straight bars or drops)



Rohloff reliability
and functionality
in a superb
Adventure bike,
Monster Gravel
Bike or
European Tourer

[CLICK HERE](#) for
LINK to BUILDS 6a and 6b

BUILDS 7a and 7b NOMAD Mk3 700c AB Special

(Rohloff straight bars or drops)



The ultimate
machine for
reliable, efficient
and comfortable
travel with light to
medium weight
loads.

[CLICK HERE](#) for
LINK to BUILDS 7a and 7b

BUILDS 8a and 8b MERCURY Mk3 650b

(Rohloff straight bars or drops)



An outstanding
Gravel Bike and a
super comfortable
bike for cyclists at
every level of
ability on today's
broken roads.

[CLICK HERE](#) for
LINK to BUILDS 8a and 8b

BUILDS 9a and 9b MERCURY Mk3 700c

(Rohloff straight bars or drops)



The
ULTIMATE
SPORT
TOURING
BIKE!

[CLICK HERE](#) for
LINK to BUILDS 9a and 9b

THORN BIKE COMPARISON MATRIX

My assessment of our bikes' abilities in various situations. Tyres & Forks make significant differences to how bikes perform - see pages 30, 31, 41, 42 and 43. In the comparisons below, each bike has its 2 most frequently recommended tyre and fork options. Notice how the scores change, sometimes significantly, when different tyres and/or forks are considered. I've also taken road surface into account.

A Club Tour (or Mercury) with 853 forks and 38c G-One Speed tyres scoring 6 on rough roads, yet only 5 on smooth roads, doesn't mean that it actually goes better on rough roads - it simply means that, compared to other bike/fork/tyre combinations, it goes outstandingly well on rough roads.

Andy Blance Nov 2019

THORN BIKE COMPARISON MATRIX							OUTSTANDING			6	ACCEPTABLE			2
My assessment of our bikes' abilities in various situations. Tyres & Forks make significant differences to how bikes perform - see pages 30, 31, 41, 42 and 43. In the comparisons below, each bike has its 2 most frequently recommended tyre and fork options. Notice how the scores change, sometimes significantly, when different tyres and/or forks are considered. I've also taken road surface into account. A Club Tour (or Mercury) with 853 forks and 38c G-One Speed tyres scoring 6 on rough roads, yet only 5 on smooth roads, doesn't mean that it actually goes better on rough roads - it simply means that, compared to other bike/fork/tyre combinations, it goes outstandingly well on rough roads. <i>Andy Blance Nov 2019</i>							EXCELLENT			5	UNSUITABLE			1
							VERY GOOD			4	SHOULD NOT BE USED FOR THIS PURPOSE			
							GOOD			3	MUST NEVER BE USED FOR THIS PURPOSE			
B U I L D	Specification Details. (Assumes the optimum racks for each specific purpose. Also assumes that you'd remove any front carrier for lightweight use)		Short distance commuting WORK CLOTHES and SHOES	General leisure riding, country lanes, tow paths etc.	Fast Touring and/or AUDAX rides. SMOOTH Roads <8kg	Fast Touring and/or AUDAX rides. ROUGH Roads <8kg	Light-weight OFROAD Gravel roads and Bridle-ways <5kg	Light-weight B&B touring on B roads <14kg	Light-weight cycle camping on sealed roads <20kg	Light-weight cycle camping on Dirt roads <20kg	Heavy Cycle Camping on sealed roads <35kg	Heavy Cycle Camping on DIRT ROADS <35kg	Adventure Touring HOLIDAYS Cycle Camping on really rough tracks <25kg	Expedition Touring. Round the world , self supported etc. 40+kg
	Wheel size and FORK	BIKE BARS + GEAR SYSTEM + tyres	A	B	C	D	E	F	G	H	J	K	L	M
1 a or b	26" V BRAKE FORK	NOMAD Mk3 Drop or Straight + Derailleur Schwalbe Dureme 2.0 tyres	3	2	1	1	4	3	4	4	5	4	4	4
1 a or b	26" V BRAKE FORK	NOMAD Mk3 Drop or Straight + Derailleur Schwalbe Almotion 2.15 tyres	2	2	1	1	3	3	4	3	4	4	4	4
2 a or b	650b STEEL DISC fork	NOMAD Mk3 Drop or Straight + Derailleur Schwalbe G-One Speed 60mm	4	3	2	3	5	4	4	5	4	3	5 G-One Bite	2
2 a or b	650b STEEL DISC fork	NOMAD Mk3 Drop or Straight + Derailleur Schwalbe Almotion 55mm	3	2	1	2	3	3	4	4	4	3	4	4
3 a or b	650b STEEL DISC fork	CLUB TOUR Mk5 Drop or Straight + Derailleur Schwalbe G One Speed 50mm	4	5	3	4	5	4	4	4	3	2	3	
3 a or b	650b STEEL DISC fork	CLUB TOUR Mk5 Drop or Straight + Derailleur Schwalbe Mondial 50mm	3	4	2	3	4	4	4	3	4	2	2	
4 a or b	700c 853 forks	CLUB TOUR Mk5 Drop or Straight + Derailleur Schwalbe G-One speed 38c	4	4	5	6	4	5	3	1				
4 a or b	700c ST 700 FORK	CLUB TOUR Mk5 Drop or Straight + Derailleur Schwalbe Supreme 35c	3	3	4	5	3	5	5	2	2	1	1	
5 a or b	26" V BRAKE FORK	NOMAD Mk3 Drops or Straight + ROHLOFF Schwalbe Dureme 2.0 tyres	3	2	1	1	4	3	4	4	5	5	6 26 x 2.0" MTB	6
5 a or b	26" V BRAKE FORK	NOMAD Mk3 Drops or Straight + ROHLOFF Schwalbe Almotion 2.15 tyres	2	2	1	1	3	3	3	4	5	5	5	6
6 a or b	650b STEEL DISC fork	NOMAD Mk3 Drops or Straight + ROHLOFF Schwalbe G-One Speed 60mm	4	5	2	3	5	4	4	5	4	4	6 G-One Bite	3
6 a or b	650b STEEL DISC fork	NOMAD Mk3 Drops or Straight + ROHLOFF Schwalbe Almotion 55mm	3	4	1	2	4	4	4	4	5	4	4	5
7 a or b	700c 853 forks	NOMAD Mk3 AB SPECIAL Drops or Straight + ROHLOFF Schwalbe G-One Allround 38c	4	5	3	4	4	5	6	4			2	
7 a or b	700c ST 700 FORK	NOMAD Mk3 AB SPECIAL Drops or Straight + ROHLOFF Schwalbe Supreme 40c	3	4	3	3	3	5	5	3	3	1	2	
8 a or b	650b STEEL DISC fork	MERCURY Mk3 Drops or Straight + ROHLOFF Schwalbe G One Speed 50mm	4	5	3	4	6	4	4	5	1	1	3	
8 a or b	650b STEEL DISC fork	MERCURY Mk3 Drops or Straight + ROHLOFF Schwalbe Mondial 50mm	3	4	2	3	4	4	4	4	1	1	2	
9 a or b	700c 853 forks	MERCURY Mk3 Drops or Straight + ROHLOFF Schwalbe G-One speed 38c	4	4	5	6	4	6	4	1				
9 a or b	700c ST 700 FORK	MERCURY Mk3 Drops or Straight + ROHLOFF Schwalbe Supreme 35c	3	3	4	5	3	5	4	2	1	1	2	
10 MANY SPECS	700c Carbon DISC fork	AUDAX MK4 DISC DROPS + DERAILLEUR Schwalbe G-One speed 30c	1	2	6	4	2	3	1					

2020 THORN SOLO BIKE GEOMETRY

All dimensions **except frame sizes** are given in mm, except seat angles, which are in degrees.
Frames include high quality FSA aerospace bearing headset and nice quality 27.2mm micro adjustable seat post.

MODEL	SIZE (cm)	FRAME TUBE DIAMETERS	SEAT TUBE C to C	SLOPE	HEAD TUBE	VIRTUAL TOP TUBE C to C	BB Drop	SEAT ANGLE In degrees	CHAIN STAY	FORK OFFSET	MIDTUBE Standover HEIGHT	S/O at front of top tube
AUDAX Mk4 700C THORN 858 Seamless, Double butted Heat treated Cro-Mo frame & stays	50S	LIGHTWEIGHT OVERSIZED FRAME TUBES 28.6 top tube 28.6 seat tube 31.8 down tube 16mm seat stays .8/5/8 gauge	380	120	98	520	72	74	425	55	701	761
	52M		420	100	105	550	72	73.5	430	46	738	788
	55M		480	70	133	565	72	73	430	46	772	807
	55.5S		415	140	156	530	72	74	430	55	742	812
	58M		520	60	165	575	67	72.5	430	46	801	831
	61M		550	60	196	595	67	72	435	46	833	863
CLUB TOUR Mk5 700c/650b REYNOLDS 725 Double butted Heat treated Cro-Mo frame & stays	NEW 50S	STANDARD OVERSIZED FRAME TUBES 28.6 top tube 28.6 seat tube 31.8 down tube 16mm seat stays .9/6/9 gauge	410	90	109	530	70	74	436	55	740	765
	NEW 50L		410	90	105	565	70	73.5	441	50	740	765
	52S		440	80	125	540	70	73.5	436	55	755	785
	52L		440	80	117	580	70	73	444	50	755	785
	55S		480	70	154	550	70	73	439	55	785	825
	55L		480	70	144	590	70	72.5	447	46	785	815
	58S		520	60	188	560	65	73	439	50	820	842
	58L		520	60	179	600	65	72.5	450	46	820	842
	61S		560	50	214	575	65	72.5	441	50	850	865
	61L		560	50	205	615	65	72	453	46	850	865
MERCURY Mk3 700c/650b REYNOLDS 853 Seamless, Double butted Heat treated frame & REYNOLDS 725 stays	NEW 50S	Special O/S	410	90	109	545	70	74	431	55	740	765
	NEW 50L	FRAME TUBES 30.2 top tube 30.2 seat tube 31.8 down tube 16mm seat stays	410	90	105	570	70	73.5	431	46	740	765
	52S	.8/5/8 gauge Inc shim to fit Industry standard 27.2 seat post	440	80	125	555	70	73.5	431	50	755	785
	52L		440	80	117	580	70	73	431	46	755	785
	55S		480	70	154	565	70	73	431	50	785	825
	55L		480	70	144	590	70	72.5	436	46	785	815
	58S		520	60	188	575	65	73	431	50	820	842
	58L		520	60	179	600	65	72.5	436	46	820	842
	61S		560	50	214	585	65	72.5	436	50	850	865
	61L		560	50	205	615	65	72	441	46	850	865
THORN NOMAD Mk3 26"/650b THORN 969 Seamless, Double butted Heat treated Cro-Mo frame & stays	40S/T	MEGA OVERSIZED FRAME TUBES 31.8 top tube 31.8 seat tube 34.9 down tube 19mm seat stays	440	Step Through frame 180mm Head Tube		545	55	74	441	60		
	NEW 47S/T		505	Step Through frame 230mm Head Tube		580	50	73	453	53		
	50S	.9/6/9 gauge Inc shim to fit Industry standard 27.2 seat post	445	100		535	55	74	435	60	725-740*	755-770*
	50L		445	100		570	55	73.5	453	53	725-740*	755-770*
	52S		475	90		545	50	73.5	441	60	750-765*	785-800*
	52L		475	90		585	50	73	459	53	750-765*	785-800*
	55S		515	80		555	50	73	447	60	800-815*	820-835*
	55L		515	80		600	50	72.5	466	48	800-815*	820-835*
	58S		550	75		570	45	73	453	53		
	58L		550	75		615	45	72	472	48		
	61S		585	70		585	40	72.5	459	48		
	61L		585	70		635	40	72	479	48		
									WRT standover heights above, first figure is for 26" x 2.0" second figure* is for 650 x 60b BLACK figures are measured RED figures yet to be measured			

FRAME SIZING - Women's frames.

We don't make frames specifically for MEN or for WOMEN but, as we make so many different sizes and models, we're confident we can supply 97% of the adult population, with the frame, for a perfectly fitting machine from our stock.

I know several female cyclists who are stronger and/or quicker than almost any male cyclist. (In my opinion, the 2 greatest cyclists of all time were Eddy Merckx and Beryl Burton.)

Generally however, women are not as heavy or as strong as male cyclists.

There's a popular misconception that, generally, women have longer legs than men of the same height. This may appear to be true, when looking at people in the street but it's not actually true of people in bare feet. High heels can't be used to advantage whilst cycling.

Why has this misconception arisen?

[1] Women generally have less upper body strength than men - when this is the case, they can't support a sporty position as well as, or for as long as, most men.

[2] Many women suffer from discomfort in the perineal area, whilst adopting a low position.

[3] Women usually have smaller hands than men. The result of any or all of the preceding points, is that women are frequently told that they require a bike position, with a significantly shorter reach than that of a man with identical body dimensions.

It's more likely, in my opinion, that a slightly shorter reach, combined with a higher handle bar position would be even more comfortable.

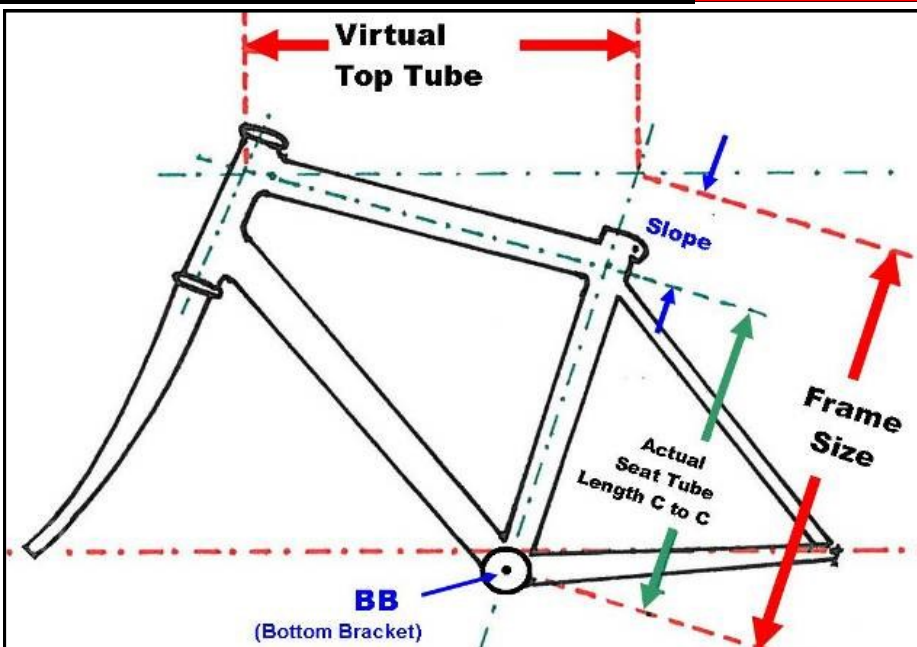
It's true that more than 90% of our customers are male but we've always made sizes suitable for women.

(And for short men, who want a relaxed position).

Mercury Mk3, Club Tour Mk5 and Nomad Mk3 frames are all available in size 50S. In addition, we make 2 sizes of step through Nomad Mk3 frames the small 40 S/T and the medium sized 47 S/T

The Audax Mk4 is available in size 50S.

The 55.5S Audax Mk4 is unique - it's a sports bike with a medium sized frame, a short top tube, no toe overlap and excellent handling.



HOW WE SIZE OUR FRAMES

Please refer to the Matrix on the previous page (24)

All our frames have sloping top tube.

This slope is beneficial in providing the rider with more clearance when standing over the top tube, at the middle of the tube. We call this mid tube stand over height.

It's essential that you can stand over your bike at this point.

Long legged riders ought to be able to straddle the bike at the very front.

I shall do my best to explain what the dimensions in the matrix mean.

The way that we size our frames is to measure the seat tube, from the centre of the BB, to the intersection of where the centre line from the top tube would intersect with it, IF the bike had a horizontal top tube - this is the "SIZE" in cm in the matrix. (e.g. 50, 52, 55, 58 and 61.

We also provide a dimension, which we call "SLOPE" - the difference between the size and the actual seat tube C to C in mm

You'll also see, in the diagram above exactly how we measure the

VIRTUAL TOP TUBE

Our Mercury Mk3, Club Tour Mk5 and Nomad Mk3 frames are available with either Long (L) or Short (S) virtual top tube lengths. Because the Audax Mk4 is intended for sporty use most sizes have a medium length top tube.

On a sloping frame, the Virtual Top Tube is different to and much more informative than, the actual top tube C to C dimension. The greater the slope, the more meaningless the actual top tube dimension becomes.

This is our modern take on convention [2] please see "Other methods of sizing frames." in the text box below.

OTHER METHODS OF SIZING FRAMES

(This is for interest only and it's not necessary to read this.)

If you measure to the top of the actual seat tube, it won't tell you much about the frame.

[A] The current MTB convention of sizing frames using an apparently random number of inches, only works as long as all frames have a similar shape and as long as all manufacturers agree to this convention. I expect that we could call our frame sizes something like:-

15", 16½", 18", 19½" and 21"

[B] On the other hand, traditional touring bike manufacturers used 2 conventions.

[1] Frames were measured from the BB centre to the top of the seat tube. Measured this way the frame sizes above could be called :-

20½", 21½", 22¼", 23½" and 24½"

This makes some sense, provided that the top of the seat tube is almost level with the top tube but often they're not and then the convention becomes nonsense.

[2] Alternatively frames were often measured from the BB to the intersecting centre lines of the seat tube and horizontal top tube. This made sense because both conventions measured top tubes between centre lines. Measured this way these same frame

sizes could be called:-

19½", 20½", 21½", 23" and 24"

(We favoured this convention, until it became normal to have a sloping top tube)

I hope that I've explained why we don't use the MTB convention or either of the old touring bike conventions - a 19½" touring bike would be ludicrously small for someone who needs 19½" MTB and a 21" MTB would be monstrously huge for the shorter than average height men, or slightly taller than average height women who may ride a 21" touring bike!

Although it may seem complicated at first, we consider our method of sizing touring bikes, to be the most sensible system in use today.

VERY RELAXED: This is a position which places a very considerable amount of the rider's weight on the saddle. The rider is leaning forward slightly but is sufficiently upright to enable them to look around easily. This position is ideal for gentle cycling, or for cycling slowly and defensively in traffic.

The very relaxed position is not efficient at speed, or in high winds but it is possible to exaggerate the bend in the arms, in order to obtain a lower position, for short periods of time.

PLEASE NOTE: The bike will look more aesthetically pleasing, if comfort bars are used to gain some of the considerable height which is required. A very relaxed position is often only achievable, for very tall cyclists, by using comfort bars.

Most men and all women will need a **Short Club Tour, Mercury or Nomad Mk3** to achieve this position with straight bars.

This position is **NOT** achievable with drop bars.

RELAXED: This is a position which places most of the rider's weight on the saddle. The rider is leaning forward a little more than with a very relaxed position but is still sufficiently upright to enable them to look around, without appreciably changing their position.

Many men but practically all women will need a **Short Club Tour, Mercury or Nomad Mk3** to achieve this position with straight bars.

This position is (almost certainly) **NOT** achievable with drop bars.

FAIRLY RELAXED: This is a position which places much of the rider's weight on the saddle. The position is efficient for fairly brisk riding and is suited to assertive riding in traffic. More of the rider's weight is supported by their arms and hands. The rider is still sufficiently upright to enable them to look around - but only when they make a positive effort to do so.

A few men and many women will need a **Short Club Tour, Mercury or Nomad Mk3** to achieve this position with straight bars.

This position may not be achievable with drop bars on a Club Tour, it's even less likely to be possible on a Nomad Mk3 and very unlikely to be possible on a Mercury or on a Nomad with GRX (derailleur) STI.

FAIRLY SPORTY: This is an even lower position, which spreads the rider's weight between saddle and bars. The position is fairly aerodynamic and much more suited to brisk riding. The rider is still able to raise themselves to look around when necessary.

It may be uncomfortable to ride sedately in this position.

It's unlikely that this position is achievable with comfort bars.

SPORTY: This is a much lower position and it is well suited to covering long distances at a brisk pace efficiently and in comfort. The position is not as low as a racing position but most cyclists are not racing cyclists. It would almost certainly be uncomfortable to ride slowly for any distance, in this position.

The majority of cyclists ought to still be able to look around when necessary - others may have to ride with one hand to facilitate this. Please don't confuse "looking around" with being able to glance behind.

This position is **NOT** achievable with comfort bars.



VERY RELAXED



RELAXED



FAIRLY RELAXED



FAIRLY SPORTY



SPORTY



Achieving your perfect position on your bike

We can set your bike up in many different positions:-

VERY RELAXED, RELAXED, FAIRLY RELAXED, FAIRLY SPORTY or SPORTY

We will even take instruction to split the difference between 2 of the main positions. If this is your wish, please tick both boxes.

For example many customers choose a position between "Fairly Relaxed" and "Fairly Sporty" - we call this **SPORTY/ RELAXED**

Almost every man and most women would need a **Long Club Tour, Mercury or Nomad Mk3** to achieve this position with straight bars.

FAIRLY SPORTY USING BAR ENDS



SPORTY USING BAR ENDS



The model we've used is of average height for a man in the UK (1745mm). He also has average length arms and legs for his height.

Please note, we make allowance for height, BFSO, gender and for body type.

We also add 20mm to the height of the positions shown and cut the cables to suit - this is our margin for error - you can easily drop the bars by 20mm when you receive the bike.

Please note. In the above pic of the "sporty" position, the stem we've used is longer than we'd normally use on this size bike. Normally we'd have used a longer frame to achieve this position. We fitted the 150mm stem simply to illustrate the "sporty" position. It also serves to illustrate that no one frame can be chosen for every set up position.

You can see that our model's position, when using the bar ends on a fairly sporty set up, is very similar to his position on the grips with a sporty set up. Our model's position, on the sporty set up, when using the bar ends is almost a full racing tuck. Don't underestimate the variety of positions you can achieve, with straight bars and bar ends - particularly if you choose the Ergon GP5-L bar ends.

How to get the perfect set up on your THORN bike.

Do you currently have a bike?

YES

NO

Are you happy with the set up?

YES

NO

Did you keep the set up dimensions from a previous bike?

NO

Can you indicate EXACTLY how this position would need to change, in order for it to be suitable?

NO

Does (did) this bike have the same type of bars as you wish your new bike to have?

YES

Please apply our correction factor, see "measuring an existing bike" on page 28

Please fill in ALL the details requested in the section "PERSONAL DETAILS" We will use this data to calculate the set up of your new bike. Alternatively, you can make an appointment to visit us. UK 01278 441505 sales@thorncycles.co.uk

Please fill in ALL the measurements in the section "Measuring an existing bike" (Which you'll find on page 24) We will then use YOUR MEASUREMENTS to set up the position on your new bike.

Would you be happy with this set up on your NEW BIKE? Please bear in mind that it may be for a different purpose.

YES

NO

YES

Customers' Personal details

We only need these if you can't supply set up dimensions
The dimensions we need are really quite simple.

In order for US to be able to CALCULATE and determine a suitable position for your next THORN bike, we must have very specific and perhaps, to some people, very personal information. We need EVERY BIT of the information requested in the table below.

Alternatively, you may be able to complete the set up details EXACTLY as requested in the section "MEASURING AN EXISTING BIKE".

Or, as a THIRD OPTION, you are most WELCOME to VISIT US and we'll be very happy to measure and advise you and/or in the case of one of our Rohloff bikes, let you take one out for a test ride.

PLEASE NOTE: Unless one of the 3 options above are followed exactly, we are unable to guarantee the results and only your statutory rights may apply.

DATA FOR THE PERSON THE BIKE IS FOR: Name

DIMENSIONS AND OTHER DATA.	GENDER M OR F	
	WEIGHT (kg)	
	AGE	
	HEIGHT (bare feet in mm.)	
	BFSO in mm (Bare foot stand over height in mm.)	
	SHOE SIZE (continental)	
POSITION REQD. Please tick one box, or 2 boxes.	VERY RELAXED	
	RELAXED	
	FAIRLY RELAXED	
	FAIRLY SPORTY	
	SPORTY	
	If you tick 2 boxes, we will aim for a position between them.	
CHOICE of SADDLE and TYPE of HANDLEBARS REQUIRED. Please tick one. Please state width required, if Flat Track bars are chosen.	SADDLE LENGTH (mm) Or NAME and MODEL	
	CONVENTIONAL DROPS	
	STRAIGHT	
	FLAT TRACK width (mm)	
OTHER ESSENTIAL INFORMATION Please tick one box.	COMFORT	
	Experienced, fit and confident cyclist.	
	Less experienced but keen and reasonably fit cyclist.	
	Casual and/or nervous cyclist.	

There are 2 problems with measuring BFSO:-

- [1] How far into the crotch should you push the square? The answer is, until it causes the soft tissue to gently touch bone.
- [2] It's possible to tilt the pelvis without realising it, which makes a nonsense of the result. To avoid tilting the pelvis, stand against a vertical wall, with your head, heels and shoulder blades touching the wall. Now try and touch the small of your back and calf muscles against the wall, the pelvis is immobilised and a meaningful measurement may now be taken.

Please see diagram on the left.

You'll need someone else to help you to take this measurement. You may need to improvise to find a suitable square. Really big coffee table books are an option. A carefully cut and folded sheet of card, taken from an extra large carton is another option.

ARM SPAN. This is very simple to measure. Stand facing a wall and, with your arms horizontal, touch the corner of the wall with the longest finger of one hand and then see how far you can extend the corresponding finger of the other hand. Mark this point. It's then easy to measure from the corner to the mark.

HOW TO MEASURE YOUR BFSO

(bare foot stand over height)
IT DOES TAKE 2.

90° square, or LARGE COFFEE TABLE BOOK pressed up into the crotch (perineal area) until it just touches bone.

Measure from top of square (OR BOOK) to ground

Head upright and flat against the wall.

Shoulders relaxed and shoulder blades flat against the wall.

Try and press the small of the back flat against the wall.

Try and press the knees and calf muscles flat against the wall.

Heels flat against the wall, feet 150mm apart.

Measuring an existing bike

The dimensions we ask for, will enable us to set up your new bike exactly as your favourite machine.

Please provide either "L" or "H".

Experience has shown us that these dimensions are the easiest dimensions to take, that will plot **exactly** where your saddle is, in relation to your pedals. They also establish **exactly** where your bars are in relation to your saddle.

Please use this method only.

The dimensions we need to duplicate your position.
Please refer to diagram below.

N	Overall saddle length in mm. And/or name of saddle.
S	The distance in mm. FROM THE UPPER SURFACE OF THE LOWER PEDAL (with crank in line with seat tube) to the top of the saddle, measured along the seat tube. MAKE CERTAIN THAT YOU GET THIS RIGHT - PLEASE CHECK CAREFULLY WHAT WE'RE ASKING FOR - WE'RE NOT ASKING FOR CENTRE of BB TO TOP OF SADDLE - IF YOU GET THIS WRONG YOU WILL ALMOST CERTAINLY GET THE WRONG SIZE FRAME.
B	The distance that a plumb line falls behind the CENTRE of the BB, when suspended from the nose of the saddle. IF YOU GET THIS WRONG IT WILL SERIOUSLY AFFECT THE REACH.
L	On a STRAIGHT BAR BIKE , it's the distance that the TOPS of the GRIPS are LOWER than saddle. On a DROP BAR BIKE , it's the distance that the TOP of the BARS are LOWER than the saddle. Use a long bubble level or a straight edge with a small bubble level taped to it and measure from the top of the saddle to the top of the bars (at their closest point to the stem). The bike must be on a level surface.
H	On a STRAIGHT BAR BIKE , it's the distance that the TOPS of the GRIPS are HIGHER than saddle. On a DROP BAR BIKE , it's the distance that the TOP of the BARS are HIGHER than the saddle. You can use the same methodology as described in L above to measure this
DS	This is the distance from the nose of the saddle to the centre of the bars, on a bike with 3-5° STRAIGHT BARS . These are the most common straight bars in use today, most MTB low rise bars are 5°. Our THORN STRAIGHT BARS and THORN NARROW BARS are both 5° BARS.
DD	This is the distance from the nose of the saddle to the centre of the bars, on a bike with DROP BARS
DF	This is the distance from the nose of the saddle to the centre of the bars, on a bike with 10° THORN FLAT TRACK or 12.5° THORN BARS (eXp or FFT)
DC	This is the distance from the nose of the saddle to the centre of the bars, on a bike with THORN COMFORT BARS , which have an 18° bend.
DX	This is the distance from the nose of the saddle to the centre of the bars on a bike with ANY OTHER BAR . PLEASE NOTE...YOU MUST BE ABLE TO COMMUNICATE TO US EXACTLY WHAT THESE BARS ARE.

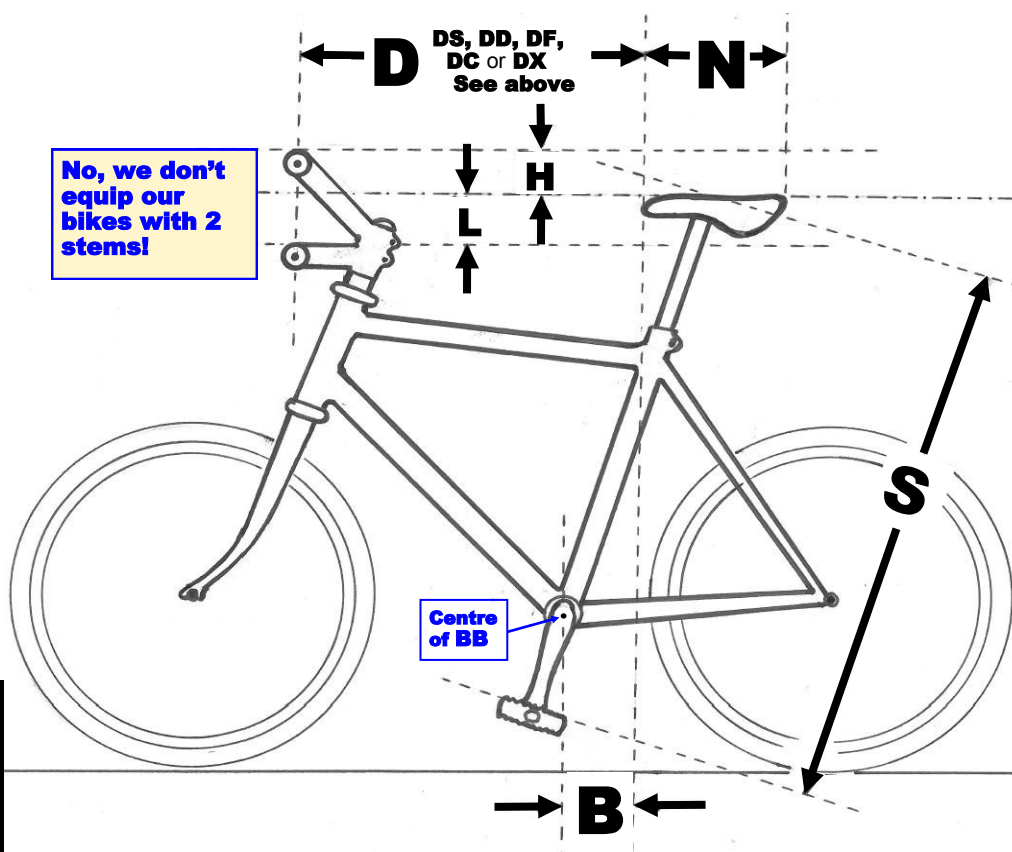
Correction of 'D'

Compared to our 5° bend straight bars, the following table shows how much shorter, or longer a stem probably needs to be in order to achieve a similar position with a different type of bar.

DS	0mm
DD	-55mm
DF	+15mm
DC	+35mm
DX	???mm

PLEASE NOTE:

The dimensions that you give us must be accurate. Please get someone else to check your measurements.



Which Thorn Frame Size? Mercury Mk3, Club Tour Mk5, Nomad Mk3 + Audax Mk4 frames only.

A step through frame (S/T) is an option for most cyclists who need or want one -

Choose **40S/T** if the matrix says you could ride 50 or 52 and choose **47S/T**, if it says you could ride 55 or 58.

Where I've entered **40S/T** on the matrix - you must have a step through frame. *Andy B Nov 2019*

[1] Measure your height in bare feet in mm.

[2] Measure your barefoot standover height (BFSO) in mm
see page **27**

[3] Look at the Height in bare feet column, then read across to find the column with the closest BFSO to your own. Your ideal frame size is given next to your BFSO. (In the same colour column)

[4] Almost all men (and women who require a sporty position) – select **L** frames for straight bars and **S** frames for drop bars.

[5] Women requiring a fairly relaxed position and men requiring a very relaxed position should select **S** frames for straight bars.

[6] Where 2 frame size options are given, choose the smaller size with a Nomad Mk3 frame - for other frames, the choice is aesthetic.

[7] Frame sizes in **RED** mean that although you will have standover clearance in the middle of the top tube, you will touch it at the very front of the bike - it's not ideal but it's sometimes inevitable for those with short legs.

Height in bare feet (mm)	BFSO Bare foot Stand Over height (mm) Average Length Legs	Ideal Frame Size	Shorter than Average BFSO	Ideal Frame Size	Longer than Average BFSO	Ideal Frame Size	MUCH Shorter than Average BFSO	Ideal Frame Size	MUCH Longer than Average BFSO	Ideal Frame Size
1510	688		666		710	40S/T	644		730	50
1525	695		673		718	40S/T	650		737	50
1540	702		680		725	40S/T	657		744	50
1555	709	40S/T	688		730	50	666		751	50/52
1570	716	40S/T	695		737	50	673		758	50/52
1585	723	40S/T	702		744	50	680		765	50/52
1600	730	50	709	40S/T	751	50/52	688		772	50/52
1615	737	50	716	40S/T	758	50/52	695		779	52
1630	744	50	723	40S/T	765	50/52	702		786	52
1645	751	50/52	730	50	772	50/52	709	40S/T	793	52/55
1660	758	50/52	737	50	779	52	716	40S/T	800	52/55
1675	765	50/52	744	50	786	52	723	40S/T	807	52/55
1690	772	50/52	751	50/52	793	52/55	730	50	814	52/55
1705	779	52	758	50/52	800	52/55	737	50	821	55
1720	786	52	765	50/52	807	52/55	744	50	828	55/58
1735	793	52/55	772	50/52	814	52/55	751	50/52	835	55/58
1750	800	52/55	779	52	821	55	758	50/52	842	55/58
1765	807	52/55	786	52	828	55/58	765	50/52	849	58
1780	814	52/55	793	52/55	835	55/58	772	50/52	856	58
1795	821	55	800	52/55	842	55/58	779	52	863	58/61
1810	828	55/58	807	52/55	849	58	786	52	870	58/61
1825	835	55/58	814	52/55	856	58	793	52/55	877	61
1840	842	55/58	821	55	863	58/61	800	52/55	884	61
1855	849	58	828	55/58	870	58/61	807	52/55	891	61
1870	856	58	835	55/58	877	61	814	52/55	898	61
1885	863	58/61	842	55/58	884	61	821	55	908	61
1900	870	58/61	849	58	891	61	828	55/58	918	61
1915	877	61	856	58	898	61	835	55/58	928	61
1930	884	61	863	58/61	908	61	842	55/58	939	61
1945	891	61	870	58/61	918	61	849	58	950	61

700c and 700c/650b FORKS

Available in 4 THORN colours for our Mercury Mk3 or Club Tour Mk5 frames:-
(Also works with previous Mercury and Club Tour frames with brakes set in the 700c position)
BRG (British Racing Green), **RED**, **BLUE** and **GUNMETAL**



700cThorn MER853VC 853 steel "V" brake fork.

These are the lightest weight steel V brake forks ever made to be sold with a lifetime warranty- **they're also, the most comfortable forks I've ever ridden.**

They may be light and comfortable but they're also very strong and reliable. Unlike carbon forks, if you're unlucky enough to hit a big pothole, you'll be able to inspect them for damage.



Reynolds made the 853c blades and lightweight 853 steerer especially for us. Reynolds even made the tooling for the tight-radius bend that I'd requested. These are a premium product offered at a premium price.

700c MER853VC forks are available in 2 different offsets:- 46mm offset A and 52mm offset B/C

Max tyre size, with generous mudguard clearance is 700 x 35c. **L1 = 385mm (Axle to crown race)**

We also have a version which allows either 700c or 650b rim brake wheels to be fitted.

These forks have removable V brake bosses, which, when reversed, allow either 700c or 650b rims to be used.

700c/650b MER853VC forks are available in 4 different offsets:- 46mm offset A, 50mm offset B, 55mm offset C and **70mm***

Max tyre sizes, with generous mudguard clearance are 700 x 40c and 650b x 54mm

The appropriate offset for each frame size (either 46mm, 50mm or 55mm) produces a sweet handling, medium trail bike for which Thorn are justifiably famous. This kind of geometry works with unloaded bikes or bikes which are loaded with the majority of the weight at the rear of the bike.

***The 70mm offset produces a classic low trail geometry with short Mercury or Club Tour frames. This provides exceptional handling, in the classic French Randonneur style - provided a large loaded front bag attached to one of our carriers is always used and not much else is carried on the bike.**

NOTE the 853c blades on both forks allow direct fitting of mudguards but they **don't** have Lo-Loader bosses. As reliable as these forks are; you must never try to fit a front carrier to them. The tight-radius bends flex beautifully, I didn't want a mudguard boss brazed on the bend, therefore we recommend that you use an SKS Secu clip.

Weight or either fork 850g with steerer cut to 300mm
L1 = 390mm (Axle to crown race)
(Steerer weighs 0.71g per mm and is 380mm at full length).



Thorn ST700 Fork Reynolds Super Tourist steel touring fork with V brake bosses and Lo-Loader bosses.

Max tyre sizes, with generous mudguard clearance are 700 x 40c

We also have a version which allows either 700c or 650b rim brake wheels to be fitted.

Thorn ST700/650b Fork Reynolds Super Tourist steel touring fork with V brake bosses and Lo-Loader bosses.

These comfortable forks must be used with a front V brake (or cantilever brake).

On a Mercury they must be used with a rear disc brake. On a Club Tour, they can be used with a rear V (or Canti brake) or rear disc.

There are 3 different offsets:-

46mm offset A, 50mm offset B, and 55mm offset C

The appropriate offset for each frame size produces a sweet handling, medium trail bike for which Thorn are justifiably famous. This kind of geometry works with unloaded bikes or bikes which are loaded with the majority of the weight at the rear of the bike.

The Blades are Reynolds Super Tourist blades. These forks are offered in all 4 different finishes to match the Mercury Mk3 or CT Mk5 frames. Such a spec will make a super commuting bike, which will avoid excessive rim wear, when chosen with rear disc. These forks may be used with straight bars or Drops.

With these steel forks, I believe that the Mercury and Club Tour Mk5 are the definitive modern touring bikes. (Please see links to these machines on pages **21 & 22**).

A full mudguard with its own dedicated bosses, can be fitted with these forks.

Max tyre sizes, with generous mudguard clearance are 700 x 40c and 650b x 54mm

Weight 1055g with steerer cut to 300mm. L1 = 390mm (Axle to crown race)

(Steerer weighs 1.03g per mm and is 380mm at full length)



700c/650b/26" FORK MATRIX

Choose the most suitable fork, for the cycling you plan and focus your: THORN Club Tour Mk5, Mercury Mk3 or Nomad Mk3 bike to suit your precise needs. The appropriate choice of fork can fundamentally change the bike's capabilities.

FORK	BRAKE TYPE	MATERIAL	L1 (axle to crown seat mm)	Max tyre With M/G	Max tyre NO M/G	NOMAD Mk3	CLUB TOUR	MERCURY	Lo-Loader	Mudguard fittings?	COMFORT out of 10
MER853VC 700	V brake (Or cantilever)	REYNOLDS Competition wt 853 Steel blades and steerer	385	700/35c	700/40c	YES specific applications	YES	YES	X	YES Direct fit	10
MER853VC 700/650b	V brake (Or cantilever)	REYNOLDS Competition wt 853 Steel blades and steerer	390	700/40c 650b/54	700/44c 650b/54	YES specific applications	YES	YES	X	YES Direct fit	10
ST 700	V brake (Or cantilever)	REYNOLDS Super Tourist Cr-Mo Steel	390	700/40c	700/44c	YES	YES	YES	7.5 kg Per side	YES Direct fit	8
ST 700/650b	V brake (Or cantilever)	REYNOLDS Super Tourist Heat treated Cr-Mo Steel	390	700/40c 650b/54	700/44c 650b/54	YES	YES	YES	7.5 kg Per side	YES Direct fit	8
THORN Mk3 Steel disc	DISC	REYNOLDS Heavy Duty Cr-Mo Steel	410	700/40c 650b/54 26 x 2.8"	700/44c 650b/54 26 x 3"	YES	YES	YES	10 kg Per side	YES Direct fit	4.5
THORN Bikepacking DISC fork	DISC	SEAMLESS Cr-Mo STEEL	410	700/40c 650b/54 26 x 2.5"	700/44c 650b/54 26 x 2.5"	YES	YES	YES	Any- thing cage mounts	YES Direct fit	3
THORN NOMAD Mk3 Fork 26"	V brake (Or cantilever provided straddle wires clear any mudguards)	REYNOLDS 725 Super Tourist Heat treated Cr-Mo Steel	410	26"/2.35"	26"/2.5"	YES	X	X	7.5 kg Per side	YES Direct fit	8

THORN Mk3
26" or 650B
or 700c
110 X 15mm
BOOST
STEEL DISC
FORK

NEW

THORN Mk3
STEEL DISC
FORK

For and including,
genuine
110 x 15
BOOST through
axle
For 26", 650b or
700c

Mk3 Steel Disc forks
are available in 3 differ-
ent offsets:-
48mm offset A,
53mm offset B
and 55mm offset C

Weight **XXXg** with
steerer cut to
300mm. L1 = 390mm
(Axle to crown race)
(Steerer weighs
1.03g per mm and is
380mm at full length)

THORN NOMAD Mk3
26" RIM BRAKE FORKS
Sorry, these are
CURRENTLY UNAVAILABLE.

We had to reject and scrap the
entire batch, we hope to have them
back in stock in Early Spring 2020.

COMING SOON

THORN UNICROWN,
STRAIGHT BLADE,
BIKE PACKING DISC FORK
for 26", 650b +700c

Due Jan 2020