# MANUAL

Lynx

Version 1.75 July 2018

BRUCE GOLDSMITH DESIGN

# Contents

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# LYNX Owner's Manual

## PARAGLIDER EN / LTF C

## Welcome to Bruce Goldsmith Design

BGD is a world leader in the design and production of paragliders. For many years Bruce Goldsmith and his team have been developing products with world-beating performance for pilots who want the best. We apply our competitive knowledge to design top quality products that combine the highest performance with the safe handling our customers value and respect. BGD pilots appreciate our quality and reliability. BGD´s world-class status is based on the skills and expertise we have developed in combining aerodynamic design with cloth and materials technology. All BGD products are developed and made with the same skill and attention to good design that are synonymous with the ultimate performance and precision required by paragliders.

## Congratulations on your purchase of the BGD LYNX

The LYNX is designed to a high standard of safety and stability, but it will only retain its characteristics if it is properly looked after. Please read this manual carefully from the first to the last chapter to ensure you get the best out of your LYNX.

This manual has been prepared to give you information and advice about your paraglider. If you ever need any replacement parts or further information, please do not hesitate to contact your nearest BGD dealer or contact BGD directly.

# 2. Introduction

The LYNX is an EN-C lightweight, high performance paraglider suitable for skilled pilots. It offers a high level of passive safety combined with high speed and great climbing performance. It is a great choice for cross-country flying, and its low weight and small pack size make it perfect for vol-bivouac adventures and hike-and-fly competitions. This glider is not intended to be used for aerobatic manoeuvres.

This paraglider must not:

1. Be flown outside the certified weight range
2. Have its trim speed adjusted by changing the length of risers or lines
3. Be flown in rain or snow
4. Be towed with a tow-line tension in excess of 200 kg

It is your dealer´s responsibility to test fly the paraglider before you receive it. The test flight record of this is in Section 9 of this manual. Please be sure that this has been completed by your dealer.

**Failure to test fly a new paraglider may invalidate any warranty.**

In order to enjoy full benefits of the BGD warranty, you are required to complete the warranty form on the website. For further information about the BGD warranty, please refer to the corresponding page on our website.

Any modification, e.g. change of line lengths or changes to the speed system, causes a loss of airworthiness and certification. We recommend that you contact your dealer or BGD directly before performing any kind of change.

## Connecting the speedbar

Although it can be flown without using the speedbar, before flying your wing for the first time it is a good idea to attach the speedbar and adjust the length. Follow the instructions in your harness manual to ensure correct routing of the speedbar lines. Connect the Brummel hooks on the speedbar to those on the risers' speed system, ensuring the lines run freely and are not caught around anything (reserve handle, risers or lines).

To adjust the speedbar length, sit in your harness and ask an assistant to hold the risers up into their in-flight position. The speedbar length should be adjusted, by moving the knots, so that the bar sits just beneath your harness seat. You should be able to hook your heels into the bar, and to attain full bar extension (the two pulleys touching). Once you have initially set the bar up in this way on the ground, a test flight in calm air can be used to fine-tune the length, ensuring it is even on both sides.

# 3. Preparation

1. Select a suitable takeoff area determined by wind and terrain, clear of any obstacles that may catch in the lines or damage the canopy.

2. If your paraglider has been correctly packed, you should take it to the top of the takeoff area, and allow the rolled canopy to unroll itself down the hill (if on a slope). This should leave the paraglider with the bottom surface facing upwards, the openings at the downwind end of the takeoff area, and the harness at the trailing edge at the upwind side.

3. Unroll the canopy to each side so that the leading edge openings form a semicircular shape, with the trailing edge drawn together as the centre of the arch. The harness should be drawn away from the canopy until the suspension lines are just tight.

# 4. Pre-flight Inspection

The LYNX is designed to be as simple as possible to inspect and maintain but a thorough pre-flight procedure is mandatory on all aircraft. The following pre-flight inspection procedure should be carried out before each flight.

1. Whilst opening out the paraglider check the outside of the canopy for any tears where your paraglider may have been caught on a sharp object or even have been damaged whilst in its bag.

2. Check that the lines are not twisted or knotted. Divide the suspension lines into six groups, each group coming from one riser. By starting from the harness and running towards the canopy remove any tangles or twists in the lines. Partially inflating the canopy in the wind will help to sort out the lines.

3. It is particularly important that the brakes are clear and free to move. Check the knot which attaches the brake handles to the brake lines. Several knots should be used here or the loose ends may get entangled in the brake pulleys. Both brakes should be the same length and this can be checked by asking an assistant to hold the upper end of the brake lines together whilst the pilot holds the brake handles. The brake lines should be just slack with the wing inflated when the brakes are not applied. After checking the brake lines lay them on the ground.

4. Always check the buckles and attachments on the harness. Ensure the two main attachment maillons/ karabiners from the harness to the main risers, and the six shackles which attach the risers to the lines, are tightly done up.

5. Before the pilot attaches himself to the harness he should be wearing a good crash helmet. Put on the harness ensuring all the buckles are secure and properly adjusted for comfort.

Your paraglider is now ready for flight.

# 5. Flight Characteristics

This manual is not intended as an instruction book on how to fly the LYNX. You should be a qualified pilot or under suitable supervision, but the following comments describe how to get the best from your LYNX.

## Weight range

Each size of the LYNX is certified for a certain weight range. The weight refers to the 'overall take-off weight'. This means the weight of the pilot, the glider, the harness and all other equipment carried with you in flight.

We recommend the LYNX is flown in the middle of the weight range.

If you fly the LYNX in the lower half of the weight range, the turning agility decreases and the glider will be more damped. In strong turbulence the wing tends to deform and to collapse slightly more than with a higher wing loading. If you mainly fly in weak conditions you should consider flying the LYNX towards the lower end of the weight range.

If you fly the LYNX in the upper half of the weight range, the agility and the stability in turbulence will increase. Also the speed will increase slightly. The self-damping will decrease in turns, as well as after collapses, so if you fly in bumpy conditions and you want a dynamic flight characteristic you should go for the top of the weight range.

## Active Piloting

Even though the LYNX is designed as an easy glider, 'active piloting' is a tool that will help you fly with greater safety and enjoyment. Active piloting is flying in empathy with your paraglider. This means not only guiding the glider through the air but also being aware of feedback from the wing, especially in thermals and turbulence. If the air is smooth the feedback can be minimal but in turbulence feedback is continuous and needs to be constantly assessed by the pilot. Such reactions become instinctive in good pilots.

In order to get the best performance from the wing, the pilot should try to control it though small brake inputs and weight-shift, rather than constantly being present on the brakes. A small movement early is more efficient than a big brake movement later to control the wing. The more you let the glider fly at trim speed, the better performance you will get out of it. The objective of active piloting is to get the glider to fly smoothly through the air with a stable position above the head, and controlled angle of incidence. The LYNX is highly resistant to collapse without any pilot action at all, but learning how to fly actively will increase this safety margin even further.

## Harness

The LYNX is tested with a 'GH' (without diagonal bracing) type harness. The GH category includes weight shift harnesses as well as ABS style (semi stable) harnesses.

**Approved harness dimensions**
This glider has been tested with a harness that complies with the EN standard harness dimensions.These are:

Seat board width: 42cm. The horizontal distance between the attachment points of the paraglider risers (measured from the centreline of the karabiners) must be:

| | |
|---|---|
| < 50kg | = 38cm |
| 50-80kg | = 42cm |
| > 80kg | = 46cm |

## Take-off

The LYNX is easy to inflate in light or stronger winds and will quickly rise overhead to the flying position. The best inflation technique is to hold one A-riser in each hand. It will launch easily using either the forward launch technique (best for light winds) or reverse launch (best for stronger winds).

**Forward Launch**
Take an A-riser in each hand. The A-risers are marked with red cloth to make them easier to find. Stand with all the A lines taut behind you, then take one or two steps back (do not walk all the way back to the canopy) and begin your launch run pulling gently and smoothly on the A-risers. As soon as the canopy starts to rise off the ground stop pulling so hard on the A-risers but pull all the risers evenly through the harness. Maintaining gentle pressure on the A-risers always helps in very calm conditions. Have your hands ready to slow up the canopy with the brakes if it starts to accelerate past you.

**Reverse Launch**
In winds over 10km/h it is recommended to do a reverse launch and inflate the canopy using the A-risers, whilst facing it

The LYNX has little tendency to overshoot but releasing pressure on the A-risers when the canopy is at about 45° will help to avoid overshooting. The stronger the wind and the greater the pressure on the A-risers, the more quickly the canopy will rise.

## Turning

The LYNX does not require a strong-handed approach to manoeuvring. For a fast turn smoothly apply the brake on the side to which the turn is intended. The speed with which the brake is applied is very important. If a brake is applied fairly quickly the canopy will do a faster banking turn, but care must be taken not to bank too severely. To attain a more efficient turn at minimum sink, apply some brake to the outside wing to slow the turn and prevent excessive banking. The LYNX flies very well like this, but care must be taken not to over-apply the brakes as a spin could result, even though the LYNX has a very low spin tendency. The LYNX will turn far more efficiently if the pilot weight-shifts into the turn in the harness. Remember that violent brake application is dangerous and should always be avoided.

## Straight Flight

The LYNX will fly smoothly in a straight line without any input from the pilot. With a pilot weight of 95 kg on the medium size without the accelerator the flying speed will be approximately 40 km/h.

## Thermalling

To attain the best climb rate the LYNX should be thermalled using a mild turn, as described above, keeping the wing´s banking to a minimum. In strong thermals a tighter banking turn can be used to stay closer to the thermal´s core. Remember that weight-shifting in the harness will make the turn more efficient and reduce the amount of brake required.

Care must be taken not to apply so much brake as to stall. This is however very easy to avoid as the brake pressure increases greatly as you approach the stall point. Only fly near the stall point if you have enough height to recover (100m).

## Rapid Descent Techniques

**Big Ears**

The wing tips can be folded in simply and easily to increase the glider's sink rate. Big ears does not mean you should fly in stronger winds, but allows you to descend quickly without substantially reducing the forward speed of the canopy (as is the case with B-lining). Being designed for light weight simplicity, the LYNX does not have a designated big-ear or 'baby-A' riser. To engage big ears the pilot will need to lean forward in the harness and grasp the outer A lines (AR3, see the line layout diagram in section 7), one in each hand, at the maillons, keeping hold of both brake handles. Pull the risers out and down at least 30 cm so as to collapse the tips of the glider. It is very important that the other A-lines are not affected when you do this, as it could cause the leading edge to collapse. Steering is possible by weight-shifting with big ears in. If the big ears do not come out quickly on their own, a pump on the brakes will speed things up.

Before using the big ears facility in earnest it is essential to practise beforehand with plenty of ground clearance in case a leading edge collapse occurs. Always keep hold of both brakes in order to retain control. Putting your hands through the brake handles so they remain on your wrists is a good method of doing this.

**B-Line Stall**

This is a fast descent method and is a useful emergency procedure. With both hands through the brake handles, take hold of the top of the B-risers, one in each hand, and pull them down by around 50 cm. This will stall the canopy and forward speed will drop to zero. Make sure you have plenty of ground clearance because the descent rate can be over 10 m/sec. To increase the descent rate pull harder on the B-risers. When you release the B-risers the canopy will automatically start flying again, normally within two seconds. Sometimes the canopy will turn gently when it exits from the B-line stall. It is normally better to release the B-risers fairly quickly rather than slowly, as the latter may result in the canopy entering deep stall.

Always release the risers symmetrically, as an asymmetric release from a B-line stall may result in the glider entering a spin. This manoeuvre is useful if you need to lose a lot of height quickly, perhaps when escaping from a thunderstorm. It should not be performed with less than 100 m of ground clearance (see also also Chapter 5).

**Spiral Dive**

A normal turn can be converted into a strong spiral dive by continuing to apply one brake. The bank angle and speed of the turn will increase as the downward spiral is continued. Be careful to enter the spiral gradually as too quick a brake application can cause a spin or an over-the-nose spiral.

BGD gliders are designed and tested to recover from normal spirals with a descent rate inferior to 16 m/s, automatically without pilot input. If the pilot increases the descent rate of the spiral to over 16 m/s or initiates what is known as an over-the-nose spiral, the glider may require pilot input to recover. In this case all the pilot needs to do is to apply some outside brake and steer the glider out of the turn.
The over-the-nose spiral is a special type of spiral dive where the glider points almost directly at the ground. It will enter this if you make a sudden brake application during the spiral entry so that the glider yaws around. The nose of

the glider ends up pointing at the ground, after which it picks up speed very quickly. This technique is very similar to SAT entry technique, and like the SAT it is an aerobatic manoeuvre, which is outside the normal safe flight envelope. Please do not practise these manoeuvres as they can be dangerous. Care should be taken when exiting from any spiral dive. To pull out of a steep spiral dive, release the applied brake gradually or apply opposite brake gradually. A sharp release of the brake can cause the glider to surge and dive as the wing converts speed to lift. Always be ready to damp out any potential dive with the brakes. Also be ready to encounter turbulence when you exit from a spiral because you may fly though your own wake turbulence, which can cause a collapse.

CAUTION: SPIRAL DIVES CAN CAUSE LOSS OF ORIENTATION (black out) AND SOME TIME IS NEEDED TO EXIT THIS MANOEUVRE. THIS MANOEUVRE MUST BE EXITED IN TIME AND WITH SUFFICIENT HEIGHT!

## Speed System

The LYNX is sold with accelerator risers and a speed stirrup as standard but can be flown without the speed stirrup attached. Launching and general flying is normally done without using the accelerator. The accelerator bar should be used when higher speed is important.

A pilot flying at the maximum in-flight weight should be able to reach the Top Speed noted in the specifications table when using the accelerator system. Glide angle is not as good in this format, so it is not necessarily the best way to race in thermic conditions and the canopy is slightly more susceptible to deflations. Using the stirrup can require some effort and the pilot´s balance in the harness can be affected. It may be necessary to make some adjustments to the harness. We recommend you only fly in conditions where you can penetrate with the risers level so that you have the extra airspeed should you need it.

To fly at maximum speed the stirrup should be applied gradually until the upper pulley on the A riser butts against the second pulley. The accelerator system is designed to give maximum speed when the pulleys of the accelerator touch each other. Please do not go beyond this point by using excessive force to attempt to make the glider go faster as this may result in the glider collapsing.

IMPORTANT:

1. Practise using the speed system in normal flying.

2. Be careful flying fast in rough or turbulent conditions as deflations are more likely to occur at speed. The speed increase is achieved by reducing the angle of attack, so the canopy has slightly more collapse tendency.

3. Remember that your glide deteriorates at higher speeds. Best glides are achieved when the risers are level and the brakes are off.

Check the component parts regularly for wear and tear, and ensure that the system always works smoothly.

## Landing

Landing the LYNX is very straightforward. Flare in the normal way from an altitude of around 2 m when landing in light winds. It may sometimes help to take wraps on the brakes to make the flare more effective.

Strong wind landings require a different technique. If you use the brakes to flare in a strong wind the LYNX tends to convert this to height. This can be a real problem. The best method is to take hold of the C-risers at the maillons just before landing, and collapse the canopy using these when you have landed. The glider will collapse very quickly using this method. The glider can also be steered using the rear-risers but be careful not to cause a premature stall.

After landing, the B-risers can also be used to collapse the canopy, although it is more difficult to control the collapsed canopy on the ground using this method.

# 6. Recovery Techniques

## Stalls

Stalls are dangerous and should not be practised in the course of normal flying. Stalls are caused through flying too slowly. Airspeed is lost as brake pressure increases and as the canopy approaches the stall point it will start to descend vertically and finally begin to collapse. Should this occur it is important that the pilot releases the brakes at the correct moment. The brakes should never be released when the wing has fallen behind the pilot; the brakes should be released fairly slowly, to prevent the forward dive of the canopy from being too strong. A pre-release of the brake and the reconstruction of the full span is recommended to avoid the tips getting cravatted during the recovery. All pilots who fly the LYNX are advised never to attempt this manoeuvre unless under SIV instruction. This manual is not intended to give instruction in this or any other area.

**Deep Stall (or Parachutal Stall)**
The LYNX has been designed so that it will not easily remain in a deep stall. However, if it is incorrectly rigged or its flying characteristics have been adversely affected by some other cause, it is possible that it could enter this situation. In the interests of safety all pilots should be aware of this problem, and know how to recover from it. The most common way to enter deep stall is from a flying too slowly, from a B-line stall or even from big ears.
When in deep stall the pilot will notice the following:

1. Very low airspeed.

2. Almost-vertical descent (like a round canopy), typically around 5m/s.

3. The paraglider appears quite well inflated but does not have full internal pressure. It looks and feels a bit limp.

Recovery from deep stall is quite simple: The normal method is to simply initiate a mild turn. As the canopy starts to turn it will automatically change to normal flight, but it is very important not to turn too fast as this could induce a spin.

The second method is to pull gently on the A-risers. This helps the airflow to re-attach to the leading edge, but be careful not to pull down too hard as this will induce a front collapse.

If the deep stall is particularly stubborn and the previous methods do not work then a full stall will solve the problem. To do this apply both brakes again fairly quickly, as if to do a strong stall, then immediately release both brakes and damp out the forward surge in the normal way. The canopy will swing behind you then automatically reinflate and surge forward in front of you before returning to normal flight. It is the surge forward that exits the canopy from deep stall.

## Spins

Spins are dangerous and should not be practised in the course of normal flying. Spins occur when the pilot tries to turn too fast. In a spin the pilot, lines and canopy basically stay vertical and rotate around a vertical axis. The LYNX will resist spinning, but if a spin is inadvertently induced the pilot should release the brake pressure but always be ready to damp out any dive as the glider exits the spin. If the pilot does not damp the dive on exiting the spin the glider may have an asymmetric deflation.

## Symmetric Front Collapse

It is possible that turbulence can cause the front of the wing to symmetrically collapse, though active piloting can largely prevent this from occurring accidentally. A pilot can reproduce the effect by taking hold of both the A-risers and pulling down sharply on them. The LYNX will automatically recover on its own from this situation in around 3 seconds. During this recovery period it is advisable not to apply the brakes as this could stall the wing.

## Asymmetric Front Collapse

The LYNX is very resistant to deflations; however if the canopy collapses on one side due to turbulence, the pilot should first of all control the direction of flight by countering on the opposite brake. Most normal collapses will immediately reinflate on their own and you will hardly have time to react before the wing reinflates automatically. The act of controlling the direction

will tend to reinflate the wing. However, with more persistent collapses it may be necessary to pump the brake on the collapsed wing using a long, strong, smooth and firm action. Normally one or two pumps of around 80 cm will be sufficient. Each pump should be applied in about one second and smoothly released. In severe cases it can be more effective to pump both brakes together to get the canopy to reinflate. Be careful not to stall the wing completely if this technique is used.

## Releasing a trapped tip (cravat)

On the LYNX it should be difficult to trap the tip so that it will not come out quickly. However, following a very severe deflation any canopy could become tied up in its own lines. If this occurs then first of all use the standard method of recovery from a tip deflation as described in Asymmetric Front Collapse above. If the canopy still does not recover then pull the rear risers to help the canopy to reinflate. Pulling the stabilo line is also a good way to remove cravats, but remember to control your flight direction as your number-one priority. If you are very low then it is much more important to steer the canopy into a safe landing place or even throw your reserve.

NOTE: Test pilots have tested the LYNX well beyond the normal flight envelope, but such tests are carried out in a very precise manner by trained test pilots with a back-up parachute, and over water. Stalls and spins on any paragliders are dangerous manoeuvres and are not recommended.

## Failure of primary controls

In the unlikely event of a brake line snapping in flight, or a handle becoming detached, the glider can be flown by gently pulling the rear risers for directional control.

# 7. Storage and Servicing

## Storage & Care

If you have to pack your canopy away wet, do not leave it for more than a few hours in that condition. As soon as possible dry out the canopy or it will become affected by mould. Do not use direct heat sources to dry the canopy as it is inflammable. Using a dehumidifier is strongly recommended if several damp gliders are stored together frequently.

Always store the canopy in a dry, warm place. Ideally this should be in the temperature range of 5 to 25 degrees centigrade.

Never let your canopy freeze, particularly if it is damp.

The canopy is made from high quality nylon, which is treated against weakening from ultra violet radiation. However it is always wise to minimise the exposure to UV radiation as this weakens the fabric of the canopy, and long exposure to harsh sunlight can severely compromise the safety of your canopy. Once you have finished flying, put your canopy away. Do not leave it laying in strong sunshine unnecessarily. If you are concerned about any aspect of the integrity of your paraglider please contact your nearest BGD dealer or talk to BGD directly.

Never drag or slide the top surface of the glider over concrete or other hard surface as this can cause abrasion damage to the sail.

Do not treat your canopy with chemical cleaners or solvents. If you must wash the fabric, use warm water and a little soap. If your canopy gets wet in sea water, wash it with warm water and carefully dry it.

Small tears in the top or bottom surface (not normally the ribs) of a canopy can be repaired with a patch of self-

adhesive ripstop nylon. Tears no longer than 100 mm can be repaired in this way providing they are not in a high-stress area. If you have any doubt about the airworthiness of your canopy please contact your dealer or BGD directly.

## Servicing / Inspection

It is important to have your glider regularly serviced. Your BGD LYNX should have a thorough check / inspection every 24 months or every 150 flight hours, whichever occurs first. This check must be made by the manufacturer, importer, distributor or other authorised persons. The checking must be proven by a stamp on the certification sticker on the glider as well in the service book. Checks should include line lengths and strength, fabric porosity and tear strength.

Please print out the service pages from this manual, fill in the number of flights and hours flown in the Service Record, and send together with your glider when it goes for inspection or servicing. The manufacturer will only accept responsibility for paraglider lines and repairs which we have produced and fitted or repaired ourselves.

## Environmental protection and recycling

Our sport takes place in the natural environment, and we should do everything to preserve our environment. A glider is basically made of nylon, synthetic fibres and metal. At the end of your paraglider's life span, please remove all metal parts and put the different materials in an appropriate waste/recycling plant.

# 8. Technical data

## Materials

BGD's LYNX is made from the following quality materials:

| | |
|---|---|
| Top surface: | Porcher 32g |
| Bottom surface: | Porcher 32g/27g |
| Internal structure: | Porcher 34g/27g hard finish |
| Nose reinforcing: | Plastic wire 2.3mm and 2.7 mm |
| Risers: | 13 mm black Kevlar/nylon webbing |
| Top lines: | Edelrid Magix Pro 8000U |
| Middle lines: | Edelrid 8000U |
| Lower lines: | Edelrid 8000U |
| Brakes: | Edelrid 8000U |

Spare parts can be obtained directly from BGD or though our network of registered BGD repair shops.

For a full list check www.flybgd.com

## Specifications

| | S | M | ML | L | |
|---|---|---|---|---|---|
| Linear scaling factor | 0.96 | 1 | 1.04 | 1.08 | |
| Projected area | 17.69 | 19.20 | 20.77 | 22.39 | $m^2$ |
| Flat area | 21.20 | 23.00 | 24.88 | 26.83 | $m^2$ |
| Glider weight excl. bag | 3.6 | 3.9 | 4.2 | 4.5 | kg |
| Total line length | 225 | 244 | 264 | 285 | m |
| Height | 7.1 | 7.625 | 7.9 | 8.2 | m |
| Number of main lines | 3/3/4 | 3/3/4 | 3/3/4 | 3/3/4 | |
| Cells | 108/60/118 | 108/60/118 | 108/60/118 | 108/60/118 | |
| Flat aspect ratio | 6.75 | 6.75 | 6.75 | 6.75 | |
| Projected aspect ratio | 4.87 | 4.87 | 4.87 | 4.87 | |
| Root chord | 2.18 | 2.27 | 2.36 | 2.45 | m |
| Flat span | 11.96 | 12.46 | 12.96 | 13.46 | m |
| Projected span | 9.27 | 9.66 | 10.05 | 10.43 | m |
| In-flight weight range | 60 - 80 | 75 - 95 | 90 - 110 | 105 - 123 | kg |
| Trim speed | 40 | 40 | 40 | 40 | km/h |
| Top speed | 57 | 57 | 57 | 57 | km/h |
| Min sink | 1 | 1 | 1 | 1 | m/s |
| Best glide | 11 | 11 | 11 | 11 | |
| Max. brake travel at max in-flight weight | 50 | 52 | 54 | 56 | cm |
| Certification | EN+LTF: C | EN+LTF: C | EN+LTF: C | EN+LTF: C | |

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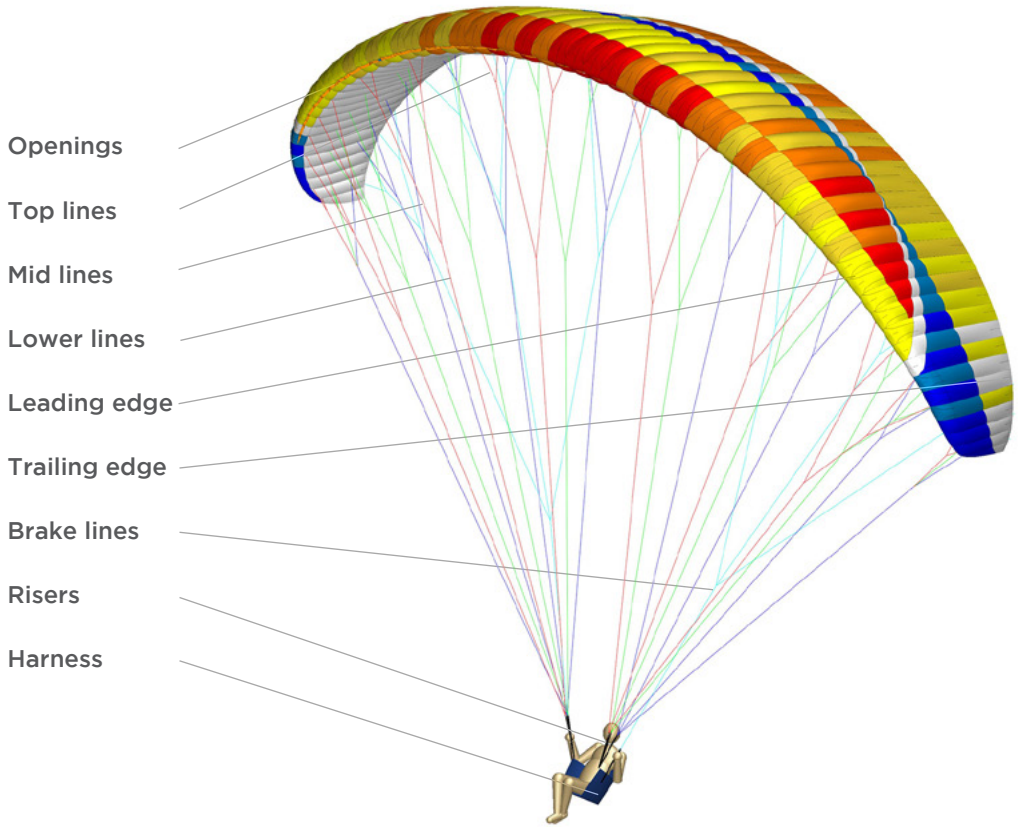
# Overview of glider parts



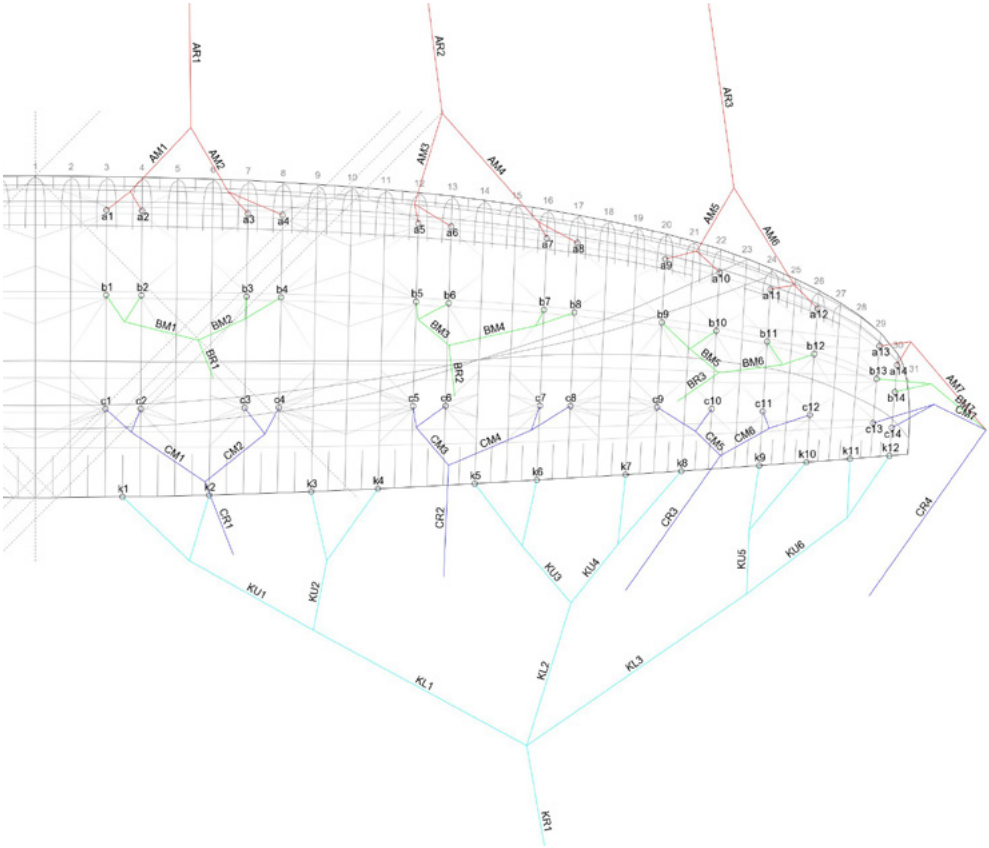
# Risers

The LYNX has three risers and an accelerator system with 14cm travel.

There are no trimmers or other adjustable or removable devices.


*For certification, the riser length of the test sample may have a difference of not more than 5mm from that specified here

# Line Plan


AR1
AR2
AR3
AM1
AM2
AM3
AM4
AM5
AM6
AM7
AM8
a1
a2
a3
a4
a5
a6
a7
a8
a9
a10
a11
a12
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c10
c11
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c13
c14
CM1
CM2
CM3
CM4
CM5
CM6
k1
k2
k3
k4
k5
k6
k7
k8
k9
k10
k11
k12
CR1
CR2
CR3
CR4
KU1
KU2
KU3
KU4
KU5
KU6
KL1
KL2
KL3
KR1

# Line length checks

All measures are in millimetres, with 50N line tension, this tension being slowly and gradually applied before taking the measurement.

The Lynx is supplied with maillons as standard. The line measurements here include the riser and the maillons.

During the EN certification process, the test team has checked the lengths of the suspension lines, control lines and risers given in the manual against the sample glider, after the test flights have been carried out. The acceptable tolerance is ±10mm.

The measurements for the test wings can be found in the Appendix of this manual.

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## Size S

### Bridle check table

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7343 | 7277 | 7411 | 7404 |
| 2 | 7305 | 7239 | 7362 | 7260 |
| 3 | 7272 | 7210 | 7324 | 7127 |
| 4 | 7286 | 7223 | 7345 | 7126 |
| 5 | 7202 | 7151 | 7243 | 7014 |
| 6 | 7162 | 7112 | 7203 | 6909 |
| 7 | 7103 | 7063 | 7143 | 6891 |
| 8 | 7119 | 7079 | 7159 | 6958 |
| 9 | 6953 | 6946 | 7024 | 6832 |
| 10 | 6849 | 6841 | 6913 | 6748 |
| 11 | 6759 | 6761 | 6825 | 6655 |
| 12 | 6688 | 6708 | 6763 | 6604 |
| 13 | 6387 | 6380 | 6478 | |
| 14 | 6300 | 6315 | 6411 | |

### Single lines

| A | | B | | C | | K | |
|---|---|---|---|---|---|---|---|
| a1 | 343 | b1 | 530 | c1 | 293 | k1 | 1018 |
| a2 | 305 | b2 | 491 | c2 | 245 | k2 | 874 |
| a3 | 311 | b3 | 457 | c3 | 243 | k3 | 658 |
| a4 | 325 | b4 | 471 | c4 | 263 | k4 | 657 |
| a5 | 331 | b5 | 423 | c5 | 310 | k5 | 646 |
| a6 | 291 | b6 | 384 | c6 | 271 | k6 | 541 |
| a7 | 274 | b7 | 311 | c7 | 267 | k7 | 506 |
| a8 | 290 | b8 | 327 | c8 | 283 | k8 | 573 |
| a9 | 968 | b9 | 880 | c9 | 826 | k9 | 488 |
| a10 | 864 | b10 | 775 | c10 | 714 | k10 | 404 |
| a11 | 1060 | b11 | 893 | c11 | 828 | k11 | 398 |
| a12 | 988 | b12 | 840 | c12 | 766 | k12 | 347 |
| a13 | 249 | b13 | 241 | c13 | 264 | | |
| a14 | 162 | b14 | 176 | c14 | 197 | KU1 | 1594 |
| | | | | | | KU2 | 1677 |
| | | | | | | KU3 | 1050 |
| | | | | | | KU4 | 1067 |
| AM1 | 1826 | BM1 | 1697 | CM1 | 1594 | KU5 | 719 |
| AM2 | 1787 | BM2 | 1702 | CM2 | 1558 | KU6 | 632 |
| AM3 | 1620 | BM3 | 1577 | CM3 | 1705 | | |
| AM4 | 1577 | BM4 | 1601 | CM4 | 1648 | KL1 | 2238 |
| AM5 | 1352 | BM5 | 1032 | CM5 | 973 | KL2 | 2763 |
| AM6 | 1065 | BM6 | 833 | CM6 | 772 | KL3 | 3070 |
| AM7 | 654 | BM7 | 650 | CM7 | 725 | | |
| | | | | | | | |
| AR1 | 4639 | BR1 | 4513 | CR1 | 4995 | KR1 | 2550 |
| AR2 | 4721 | BR2 | 4617 | CR2 | 4697 | | |
| AR3 | 4108 | BR3 | 4503 | CR3 | 4692 | | |
| | | | | CR4 | 4956 | | |

BRUCE GOLDSMITH DESIGN

## Size M

### Bridle check table

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7633 | 7562 | 7712 | 7764 |
| 2 | 7593 | 7523 | 7663 | 7603 |
| 3 | 7561 | 7493 | 7625 | 7452 |
| 4 | 7575 | 7508 | 7646 | 7443 |
| 5 | 7482 | 7429 | 7527 | 7306 |
| 6 | 7440 | 7389 | 7478 | 7182 |
| 7 | 7380 | 7339 | 7416 | 7140 |
| 8 | 7397 | 7356 | 7433 | 7196 |
| 9 | 7247 | 7236 | 7308 | 7014 |
| 10 | 7139 | 7127 | 7199 | 6912 |
| 11 | 7045 | 7038 | 7108 | 6802 |
| 12 | 6971 | 6982 | 7044 | 6737 |
| 13 | 6669 | 6665 | 6776 | |
| 14 | 6578 | 6599 | 6702 | |

### Single lines

| A | | B | | C | | K | |
|---|---|---|---|---|---|---|---|
| a1 | 356 | b1 | 551 | c1 | 303 | k1 | 1061 |
| a2 | 317 | b2 | 512 | c2 | 254 | k2 | 900 |
| a3 | 323 | b3 | 475 | c3 | 253 | k3 | 689 |
| a4 | 337 | b4 | 490 | c4 | 274 | k4 | 680 |
| a5 | 344 | b5 | 439 | c5 | 331 | k5 | 675 |
| a6 | 302 | b6 | 400 | c6 | 282 | k6 | 551 |
| a7 | 284 | b7 | 323 | c7 | 278 | k7 | 537 |
| a8 | 301 | b8 | 340 | c8 | 295 | k8 | 593 |
| a9 | 1008 | b9 | 917 | c9 | 854 | k9 | 510 |
| a10 | 900 | b10 | 808 | c10 | 745 | k10 | 408 |
| a11 | 1103 | b11 | 930 | c11 | 862 | k11 | 417 |
| a12 | 1029 | b12 | 874 | c12 | 799 | k12 | 352 |
| a13 | 260 | b13 | 251 | c13 | 282 | | |
| a14 | 169 | b14 | 185 | c14 | 208 | KU1 | 1667 |
| | | | | | | KU2 | 1727 |
| | | | | | | KU3 | 1114 |
| | | | | | | KU4 | 1086 |
| AM1 | 1897 | BM1 | 1763 | CM1 | 1655 | KU5 | 752 |
| AM2 | 1858 | BM2 | 1770 | CM2 | 1619 | KU6 | 633 |
| AM3 | 1683 | BM3 | 1639 | CM3 | 1773 | | |
| AM4 | 1640 | BM4 | 1665 | CM4 | 1715 | KL1 | 2502 |
| AM5 | 1405 | BM5 | 1073 | CM5 | 1012 | KL2 | 2982 |
| AM6 | 1108 | BM6 | 861 | CM6 | 803 | KL3 | 3217 |
| AM7 | 673 | BM7 | 674 | CM7 | 754 | | |
| AR1 | 4844 | BR1 | 4715 | CR1 | 5224 | KR1 | 2530 |
| AR2 | 4925 | BR2 | 4817 | CR2 | 4893 | | |
| AR3 | 4308 | BR3 | 4716 | CR3 | 4910 | | |
| | | | | CR4 | 5207 | | |

BRUCE GOLDSMITH DESIGN

## Size ML

### Bridle check table

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7957 | 7878 | 8017 | 8035 |
| 2 | 7915 | 7835 | 7965 | 7873 |
| 3 | 7882 | 7806 | 7926 | 7723 |
| 4 | 7897 | 7822 | 7948 | 7717 |
| 5 | 7806 | 7741 | 7827 | 7546 |
| 6 | 7764 | 7699 | 7784 | 7416 |
| 7 | 7701 | 7647 | 7719 | 7370 |
| 8 | 7718 | 7664 | 7736 | 7428 |
| 9 | 7547 | 7534 | 7612 | 7315 |
| 10 | 7433 | 7419 | 7491 | 7204 |
| 11 | 7336 | 7332 | 7396 | 7088 |
| 12 | 7257 | 7273 | 7328 | 7016 |
| 13 | 6926 | 6930 | 7046 | |
| 14 | 6831 | 6858 | 6973 | |

### Single lines

| A | | B | | C | | K | |
|---|---|---|---|---|---|---|---|
| a1 | 371 | b1 | 575 | c1 | 316 | k1 | 1103 |
| a2 | 330 | b2 | 533 | c2 | 265 | k2 | 942 |
| a3 | 336 | b3 | 495 | c3 | 264 | k3 | 715 |
| a4 | 352 | b4 | 512 | c4 | 286 | k4 | 710 |
| a5 | 358 | b5 | 458 | c5 | 336 | k5 | 702 |
| a6 | 316 | b6 | 417 | c6 | 294 | k6 | 573 |
| a7 | 297 | b7 | 337 | c7 | 289 | k7 | 558 |
| a8 | 315 | b8 | 355 | c8 | 307 | k8 | 617 |
| a9 | 1049 | b9 | 954 | c9 | 895 | k9 | 531 |
| a10 | 936 | b10 | 840 | c10 | 775 | k10 | 421 |
| a11 | 1148 | b11 | 968 | c11 | 898 | k11 | 435 |
| a12 | 1070 | b12 | 910 | c12 | 831 | k12 | 364 |
| a13 | 270 | b13 | 262 | c13 | 287 | | |
| a14 | 176 | b14 | 191 | c14 | 215 | KU1 | 1730 |
| | | | | | | KU2 | 1807 |
| | | | | | | KU3 | 1159 |
| | | | | | | KU4 | 1128 |
| AM1 | 1974 | BM1 | 1834 | CM1 | 1725 | KU5 | 782 |
| AM2 | 1935 | BM2 | 1843 | CM2 | 1688 | KU6 | 652 |
| AM3 | 1752 | BM3 | 1706 | CM3 | 1846 | | |
| AM4 | 1707 | BM4 | 1734 | CM4 | 1786 | KL1 | 2708 |
| AM5 | 1463 | BM5 | 1116 | CM5 | 1054 | KL2 | 3191 |
| AM6 | 1153 | BM6 | 901 | CM6 | 836 | KL3 | 3508 |
| AM7 | 702 | BM7 | 713 | CM7 | 805 | | |
| AR1 | 5062 | BR1 | 4925 | CR1 | 5445 | KR1 | 2490 |
| AR2 | 5144 | BR2 | 5031 | CR2 | 5112 | | |
| AR3 | 4494 | BR3 | 4920 | CR3 | 5127 | | |
| | | | | CR4 | 5419 | | |

BRUCE GOLDSMITH DESIGN

## Size L

### Bridle check table

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 8554 | 8463 | 8603 | 8614 |
| 2 | 8511 | 8418 | 8547 | 8449 |
| 3 | 8476 | 8387 | 8508 | 8297 |
| 4 | 8492 | 8402 | 8530 | 8297 |
| 5 | 8390 | 8314 | 8402 | 8141 |
| 6 | 8342 | 8266 | 8354 | 7995 |
| 7 | 8264 | 8203 | 8277 | 7935 |
| 8 | 8279 | 8218 | 8292 | 7993 |
| 9 | 8149 | 8086 | 8145 | 7776 |
| 10 | 8022 | 7963 | 8015 | 7671 |
| 11 | 7914 | 7872 | 7916 | 7586 |
| 12 | 7814 | 7822 | 7869 | 7570 |
| 13 | 7505 | 7499 | 7623 | |
| 14 | 7436 | 7455 | 7574 | |

### Single lines

| A | | B | | C | | K | |
|---|---|---|---|---|---|---|---|
| a1 | 399 | b1 | 619 | c1 | 340 | k1 | 1181 |
| a2 | 357 | b2 | 575 | c2 | 285 | k2 | 1017 |
| a3 | 363 | b3 | 534 | c3 | 285 | k3 | 760 |
| a4 | 380 | b4 | 550 | c4 | 308 | k4 | 761 |
| a5 | 386 | b5 | 494 | c5 | 363 | k5 | 750 |
| a6 | 338 | b6 | 447 | c6 | 316 | k6 | 605 |
| a7 | 321 | b7 | 364 | c7 | 313 | k7 | 598 |
| a8 | 337 | b8 | 380 | c8 | 329 | k8 | 657 |
| a9 | 1140 | b9 | 1029 | c9 | 959 | k9 | 569 |
| a10 | 1014 | b10 | 907 | c10 | 830 | k10 | 465 |
| a11 | 1256 | b11 | 1063 | c11 | 976 | k11 | 449 |
| a12 | 1157 | b12 | 1014 | c12 | 930 | k12 | 434 |
| a13 | 342 | b13 | 333 | c13 | 364 | | |
| a14 | 274 | b14 | 290 | c14 | 316 | KU1 | 1868 |
| | | | | | | KU2 | 1973 |
| | | | | | | KU3 | 1263 |
| | | | | | | KU4 | 1210 |
| AM1 | 2126 | BM1 | 1972 | CM1 | 1851 | KU5 | 848 |
| AM2 | 2085 | BM2 | 1982 | CM2 | 1812 | KU6 | 779 |
| AM3 | 1890 | BM3 | 1838 | CM3 | 1985 | | |
| AM4 | 1830 | BM4 | 1858 | CM4 | 1911 | KL1 | 3136 |
| AM5 | 1609 | BM5 | 1223 | CM5 | 1146 | KL2 | 3699 |
| AM6 | 1258 | BM6 | 975 | CM6 | 901 | KL3 | 3930 |
| AM7 | 699 | BM7 | 701 | CM7 | 795 | | |
| AR1 | 5494 | BR1 | 5340 | CR1 | 5898 | KR1 | 2425 |
| AR2 | 5577 | BR2 | 5451 | CR2 | 5536 | | |
| AR3 | 4869 | BR3 | 5302 | CR3 | 5519 | | |
| | | | | CR4 | 5944 | | |

# 9. Service Booklet

## Test Flight Record

| | |
|---|---|
| Model | |
| Size | |
| Serial Number | |
| Colour | |
| Date of test flight | |
| Company signature and stamp | |

BRUCE GOLDSMITH DESIGN

## Service Record

**Service No 1:**
Date :

Stamp - Signature :

No flights :

Type of service :

**Service No 2:**
Date :

Stamp - Signature :

No flights :

Type of service :

**Service No 3:**
Date :

Stamp - Signature :

No flights

Type of service :

# Owner Record

**Pilot No 1**

| | |
|---|---|
| First name | |
| Family name | |
| Street | |
| City | |
| Post code | |
| Country | |
| Telephone | |
| Email: | |

# Owner Record

**Pilot No 2**

| | |
|---|---|
| First name | |
| Family name | |
| Street | |
| City | |
| Post code | |
| Country | |
| Telephone | |
| Email: | |

# 10. Closing Words

Your LYNX is an advanced, stable glider that promises many hours of safe and enjoyable flying, provided you treat it with care and always respect the potential dangers of aviation.

Please always remember that flying can be dangerous and your safety depends on you. With careful treatment your LYNX should last for many years. The LYNX has been tested internationally under current airworthiness standards, and these represent the current knowledge concerning the safety of a glider. However, since there are still many unknown issues, for example the effective lifespan of the current generation of gliders and how strong the material aging can be accepted without affecting the airworthiness. We are sure that there are natural forces that can threaten your safety seriously, regardless of the quality of construction or the condition of your glider. Your security is ultimately your responsibility. We strongly recommend that you fly carefully, adapt to the weather conditions and keep your safety in mind.

Flying in a club or a school with experienced pilots is highly recommended.

We recommend that you fly with a standard harness with back protection and a reserve parachute. Always use good equipment and an approved helmet.

See you in the sky!

BGD GmbH
Am Gewerbepark 11, 9413 St. Gertraud, Austria
Tel: +43 (0) 4352 20477
e-mail: sales@flybgd.com
www.flybgd.com

# 10. Appendix

## EN line measurements

The tables below show the line measurements for the test wings, as measured by the test house during the certification procedure. These figures relate to the Bridle Check Tables in Chapter 8.

**Size S**

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7349 | 7285 | 7415 | 7399 |
| 2 | 7312 | 7245 | 7368 | 7255 |
| 3 | 7277 | 7212 | 7327 | 7127 |
| 4 | 7293 | 7228 | 7348 | 7127 |
| 5 | 7206 | 7155 | 7237 | 7014 |
| 6 | 7169 | 7116 | 7200 | 6905 |
| 7 | 7107 | 7068 | 7135 | 6887 |
| 8 | 7122 | 7084 | 7152 | 6955 |
| 9 | 6961 | 6955 | 7026 | 6828 |
| 10 | 6858 | 6849 | 6916 | 6743 |
| 11 | 6766 | 6770 | 6829 | 6649 |
| 12 | 6696 | 6716 | 6766 | 6598 |
| 13 | 6396 | 6382 | 6481 | |
| 14 | 6313 | 6318 | 6413 | |

**Size M**

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7620 | 7547 | 7696 | 7759 |
| 2 | 7583 | 7505 | 7646 | 7599 |
| 3 | 7546 | 7478 | 7609 | 7449 |
| 4 | 7559 | 7491 | 7631 | 7439 |
| 5 | 7465 | 7408 | 7518 | 7298 |
| 6 | 7428 | 7370 | 7470 | 7172 |
| 7 | 7365 | 7317 | 7407 | 7130 |
| 8 | 7382 | 7334 | 7422 | 7186 |
| 9 | 7230 | 7215 | 7292 | 7005 |
| 10 | 7121 | 7106 | 7182 | 6902 |
| 11 | 7032 | 7020 | 7093 | 6792 |
| 12 | 6954 | 6960 | 7029 | 6731 |
| 13 | 6659 | 6651 | 6762 | |
| 14 | 6560 | 6581 | 6684 | |

**Size ML**

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 7962 | 7882 | 8022 | 8037 |
| 2 | 7919 | 7839 | 7973 | 7874 |
| 3 | 7885 | 7809 | 7933 | 7727 |
| 4 | 7901 | 7827 | 7957 | 7721 |
| 5 | 7805 | 7745 | 7833 | 7544 |
| 6 | 7765 | 7702 | 7792 | 7412 |
| 7 | 7700 | 7649 | 7727 | 7368 |
| 8 | 7717 | 7666 | 7743 | 7426 |
| 9 | 7548 | 7533 | 7612 | 7326 |
| 10 | 7435 | 7416 | 7491 | 7214 |
| 11 | 7336 | 7332 | 7400 | 7099 |
| 12 | 7259 | 7273 | 7330 | 7028 |
| 13 | 6934 | 6938 | 7055 | |
| 14 | 6844 | 6871 | 6986 | |

**Size L**

| | A | B | C | K |
|---|---|---|---|---|
| 1 | 8559 | 8474 | 8611 | 8612 |
| 2 | 8522 | 8427 | 8557 | 8448 |
| 3 | 8481 | 8398 | 8517 | 8297 |
| 4 | 8499 | 8411 | 8543 | 8297 |
| 5 | 8393 | 8323 | 8408 | 8140 |
| 6 | 8349 | 8276 | 8364 | 7993 |
| 7 | 8269 | 8214 | 8287 | 7934 |
| 8 | 8287 | 8230 | 8302 | 7994 |
| 9 | 8154 | 8093 | 8150 | 7775 |
| 10 | 8030 | 7968 | 8019 | 7671 |
| 11 | 7921 | 7874 | 7923 | 7586 |
| 12 | 7820 | 7827 | 7876 | 7572 |
| 13 | 7509 | 7501 | 7622 | |
| 14 | 7440 | 7456 | 7573 | |