



VEHICLE RECOVERY

GUIDE TO VEHICLE RECOVERY

Table of contents

Important Note & Warnings	2
Making the Recovery	3
Safety, Environmental Impact, Recovery Points	4
Recovery Damper, Bow Shackles	5
Snatch Strap	6
Tree Trunk Protector, Winch Extension	7
Snatch Block	8
General Care & Maintenance	9
Warranty	10

DEFINITIONS:

'Minimum breaking strength' for a motor vehicle recovery strap, means the minimum load necessary to cause the strap to fail

'motor vehicle recovery strap' means a strap, commonly called a snatch strap, for attaching to a bogged vehicle to tow it clear of the bogged situation.

'gross vehicle mass (GVM)' for a motor vehicle means the maximum loaded mass of the motor vehicle as stated:

- On the compliance plate, registration certificate, or build plate for the vehicle;
- or
- In the handbook for the vehicle; or
- In documentation for the vehicle available from the vehicle manufacturer

IMPORTANT NOTE



WARNING

INCORRECT USE MAY RESULT IN INJURY OR DEATH!



Vehicle **OCCUPANTS** and **BYSTANDERS** have been **KILLED** by flying projectiles (such as tow balls) when recovery straps have been attached incorrectly. **NEVER** attach recovery straps to vehicle fittings such as tow balls, tow bars, tie-down points or tow hooks. **ONLY** attach recovery straps to an **APPROVED** recovery point/device that is suitably rated for use with the strap. **BEFORE** attempting a vehicle recovery all passengers must exit the vehicles and stand as far away as possible.

WARNINGS

Always follow the product instructions. It is important to correctly attach the recovery strap to a motor vehicle. A standard tow ball or vehicle tie-down point is not designed for this purpose and may result in the strap or a vehicle component detaching from a motor vehicle and striking and seriously injuring or killing a person. Only attach the strap to a vehicle recovery point or device that is suitably rated for use with the strap. Incorrect use has previously resulted in serious injury and death.

- Exceeding the capacity of this product will cause it to fail. Do NOT use this product if it is damaged in any way and always inspect prior to use.
- Persons intending to use this product should consider completing a nationally recognised four-wheel drive training course, or contact a four-wheel drive club for comprehensive advice on the proper selection and use of the recovery product.
- All passengers should exit the vehicle. Passengers and spectators should stand more than 1.5 times the length of the recovery strap away from vehicles engaged in the recovery.
- Avoid kinks and twists in the webbing & keep clear of all sharp and hot surfaces.
- Always drape an item such as a recovery damper, heavy bag, blanket or similar over your Bushranger strap while in use.
- Never use your strap for lifting or conventional towing.
- If you have any doubts about whether the recovery procedure is within the Minimum Breaking Limit of your Bushranger strap, DO NOT USE IT.

SAFETY

Personal safety and the protection of property are paramount when considering 4WD recovery.

- Never attempt to recover a vehicle without all the necessary equipment
- Only use equipment that is properly rated and in serviceable condition. If in doubt, don't use it.
- Ensure that only the people required for the recovery are present. All bystanders should be kept at a safe distance.
- Ensure good communication is maintained between participants and bystanders at all times. This is best achieved by use of UHF radio.

Bushranger recovery gear is available in high visibility yellow. Different strap types are recognisable by colour and come with warning tags that include information such as strap type, rated capacity, material type and precautions.

ENVIRONMENTAL IMPACT

Always consider your impact on the environment. As responsible four-wheel drivers we are charged with caring for the areas we visit.

During wet periods, four-wheel drivers can have a devastating effect on our tracks. Long term damage can result in temporary, or even permanent track closures. Before travelling, obtain a list of road closures from the relevant state conservation and environment office.

If whilst four-wheel driving you come across an obstacle, consider a minimum of attempts at passing before trying to recover the vehicle. Excessive wheel spin can cause damage to both the track surface and vehicle components.

RECOVERY POINTS

It is important to ensure that only correctly mounted and rated recovery points are used for vehicle recoveries. Check your vehicle manufacturer's hand book for recovery point locations. Tie down points are not suitable for vehicle recovery so aftermarket recovery points should be sourced.

Never use a tow ball or tie down point as a recovery point. Tow balls are not made of high tensile material and have been known to fail from stress, with the potential to become lethal missiles. If you are unsure of the type of recovery points on your vehicle, consult the manufacturer or your nearest 4x4 accessories store.

MAKING THE RECOVERY

The method for using a snatch strap is quite simple; however improper use can cause serious damage or injury.

1. The recovery vehicle should be placed within reach of the snatch strap and if possible directly in line with the direction of pull. If this is not possible due to insufficient length, two straps may be joined using the correct method. Never join snatch straps with a bow shackle, as this may become a lethal missile in the event of strap breakage.
2. The strap should be unrolled and connected to an approved recovery point on each vehicle ensuring that the strap is not twisted. Approximately 2-3 metres of slack strap should be left between the vehicles. NEVER attach recovery straps to vehicle fittings such as tow balls, tow bars, tie-down points or tow hooks.
3. Fix a Bushranger recovery damper or blanket to the strap approximately mid-way between the vehicles.
4. Clear all bystanders from the recovery area to at least the prescribed minimum safe distance.
5. With communications maintained between both vehicles, the recovery vehicle should gently accelerate to take up the slack and proceed on, allowing the kinetic energy of the strap to pull out the stranded vehicle. For best results the stranded vehicle can assist by trying to drive at the same time. If the vehicle is not recovered on the first attempt, a little more speed by the recovery vehicle may be needed.

NOTE: Due to the nature of synthetic fibres, recovery straps require rest periods between use to return to their original length and load capacity. Be aware that excessive pulls on a recovery strap over a short period of time can result in strap failure.

6. Once free, the recovered vehicle should take care not to run over the snatch strap as damage to the strap may occur.
7. Only once both vehicles are stationary and secured should the snatch strap be removed.

NOTE: Be aware that the recovery strap will be under greater load if the vehicle is bogged in mud, sand or is heavily laden.

CAUTION:

Always follow the recovery strap guidelines for safe use.

RECOVERY GEAR EXPLAINED

RECOVERY DAMPER

Part No: 61X05

The Bushranger Recovery Damper is a device that has been designed to restrict the whipping action of a strap or winch rope in the event of failure, therefore reducing the possibility of vehicle damage and personal injury.

Recovery Dampers are now mandatory accessories for most 4WD competitions and the Bushranger Recovery Damper exceeds current minimum competition weight requirements.

The damper is designed to be worn over the shoulders for ease of carrying and comes in highly visible safety yellow with reflective tape for night use.

The Bushranger Recovery Damper should be fitted to mid way of a strap or winch rope. To install, simply pull apart the Velcro tabs and fold the damper over the strap/rope, then press the Velcro firmly back in place.



BOW SHACKLES

Part No: 58X01K/58X02K

Only bow shackles that are load rated should be used for vehicle recovery. Load ratings are visible on the shackle and will be in the form of WLL (working load limit) or SWL (safe working load). Shackles with a rating of at least 3.25t should be the minimum and are suitable for attaching one end of a strap. Rated shackles have a larger eye and are recommended. They are also suited to applications such as tree trunk protectors where two ends of the strap are fitted in the shackle.

Never over-tighten the shackle pin. Forces exerted on the shackle by vehicle recovery can cause the pin to seize. The correct method is to tighten the pin until it seats, then back off the pin approximately 1/2 to 1 full turn.



SNATCH STRAP

Part No: RSS08/RSS11

A snatch strap, as the name suggests, is used to 'snatch' a vehicle that can no longer maintain forward momentum under its own power. i.e. Bogged or unable to climb due to loss of traction, swamped in a water crossing, stuck on an obstacle or loss of power.

A snatch strap is an elastic recovery device that stores kinetic energy and has the ability to stretch to a significant degree and return to its original length. This elasticity combined with the momentum of the recovery vehicle creates a 'snatching' effect that can extract a vehicle without shock loading the attachment points or vehicle.

When choosing a snatch strap for use, it is recommended that the minimum breaking strength of the strap should be between 2 and 3 times the gross vehicle mass (GVM) of any vehicle it is used with. When using a snatch strap to recover a stranded vehicle, the minimum breaking strain should be suited to the GVM of the lighter of the two vehicles involved in the recovery process.

If the GVM is not stated on the identification plate or registration certificate of the vehicle, consult the owner's handbook or vehicle manufacturer.

It is important that the correctly rated snatch strap is used.

If a strap with a too heavy breaking strength is used on a light vehicle, the desired stretch may not be achieved and more stress will be placed on the recovery points.

Bushranger supplies snatch straps in 8000kg (17,637lb), 11,000kg (24,251lb) minimum breaking strength (MBS). Bushranger snatch Straps are manufactured from 100% nylon webbing and feature reinforced eyes for additional durability.

Bushranger Snatch Straps include a easy storage Wrap it Strap, stitched to the snatch strap so it is ready to roll up and use anytime.

Located with compliance tags, the usage tags allows you to record and track the number of times the strap is used to help identify fatigue and age of the strap.

Refer to Snatch Strap owners manual for full details.



TREE TRUNK PROTECTOR

Part No: RST11

Designed primarily to protect a tree from ringbarking, the tree trunk protector can be used to connect a winch rope to almost any anchor point. When choosing an anchor point, ensure that it is capable of withstanding the load you are about to place on it. This is particularly important when using a tree. Make sure the tree is well rooted and try not to place shock loads upon it, as it may be possible to uproot the tree, in turn causing damage to the vehicle or serious injury. Bushranger tree trunk protectors are manufactured from 100% polyester webbing and are available in a 3 metre length and has a minimum breaking strength (MBS) of 11,000kg.

The tree trunk protector should be wrapped around the base of the tree ensuring that it is not twisted. Both ends are then brought together and joined via a bow shackle. The shackle then becomes the recovery point to which the winch rope or extension strap is attached.



WINCH EXTENSION STRAP

Part No: RSW05

As the name suggests, this strap is used for the sole purpose of extending the reach of a winch rope. The winch extension strap is simply connected to the anchor point at one end and to the winch cable at the other. A recovery damper should be placed over the middle of the winch extension strap and another over the middle of the winch rope.

If using a snatch block, care should be taken that the strap does not enter the block or damage will result. Any twist should be removed from the strap before it is subjected to any load.

Bushranger winch extension straps are manufactured from 100% polyester, and available in a 10 metre length with a minimum breaking strength (MBS) ratings of 5,500kg.



SNATCH BLOCK

Part No: RBS11

A snatch block has two main purposes. It can be used to halve the amount of load on a winch, and hence double a winch's capacity. It can also be used to alter the direction of pull if straight ahead isn't the best option.

To attach the snatch block to the rope, slide the plates so that they are 90 degrees apart. Place the rope around the pulley and realign the plates. The pulley is then attached to the anchor point via a shackle through the side plate holes.

Bushranger Snatch Block is rated to 11,000kg working load and is suitable for 6-12mm cable wire or synthetic rope.



GENERAL CARE AND MAINTENANCE

Never exceed the minimum breaking strength of the strap, snatch block or bow shackles.

- Ensure attachments such as hooks, shackles, chains, rope and clevis pins have a breaking strength equal to or greater than the strap
- Avoid twists and kinks in the webbing
- Always coil your straps during storage
- Never allow your straps to rub against sharp or hot surfaces
- Clean your straps in warm water with a mild detergent and allow to dry thoroughly before storage. The ingress of foreign material such as sand and grit can permanently damage the fibres of the strap
- When storing, ensure strap is completely dry and not stored in direct sunlight or wet/humid environment
- Inspect the entire length of any strap for nicks and cuts before and after use. If damaged, the strap may fail and should be replaced
- Never use the strap as a lifting device
- Be aware that a strap can lose up to 20% strength when wet
- Always ensure your Snatch Block is clean. Remove any foreign matter from the working surfaces of the pulley. After cleaning a small amount of lubrication can be placed on the bearing for continuous trouble free use.
- Inspect all bow shackles for damage. Pins that are hard to turn suggest that the shackle has been overstressed and should be replaced

KINGSLEY PRODUCTS - WARRANTY POLICY

1. Our Warranty

We warrant to you that the Kingsley product is free from defects in workmanship and materials for the warranty period.

2. Fitting and use

Please ensure you:

- a. fit the Kingsley product in accordance with the product information and all relevant vehicle safety and compliance laws
- b. use the Kingsley product for the purpose for which it was originally designed and in accordance with the product information and all relevant vehicle safety and compliance laws

3. Exclusions

Our warranty doesn't cover:

- a. normal wear and tear
- b. fitting the Kingsley product other than in accordance with the product information and any relevant vehicle safety and compliance laws, including incorrect fitting
- c. using the Kingsley product other than for the purpose for which it was originally designed or other than in accordance with the product information and any relevant vehicle safety and compliance laws, including unusual, improper or negligent use or misuse or overloading
- d. misuse or neglect of the Kingsley product, including improper repair or maintenance or failing to repair or maintain
- e. alteration, abuse, acts of nature, terrorism, vandalism, collision, road hazards or adverse conditions

4. Making a claim

Please immediately contact us as soon as you become aware of a possible defect in the Kingsley product. We'll arrange for you to either attend a Kingsley outlet (at your cost) for a Kingsley representative to inspect the Kingsley product (as fitted to your vehicle) or for you to return the Kingsley product to us. We'll also request you to provide the purchase receipt and complete a warranty claim form. In order to ensure our warranty is not voided, please keep the purchase receipt as proof of purchase and don't remove the fitted Kingsley product from your vehicle before contacting us. Note: Non-transferable warranty. The original purchaser can only claim warranty. If your claim's in order, we'll notify you and (at our sole discretion) either repair or replace the defective workmanship or materials (at our cost) or refund to you the purchase price you paid for the defective Kingsley product. If further information or investigation is required or if the claim does not meet the requirements under our warranty, we'll let you know.

5. Australian Consumer Law

The Kingsley product comes with guarantees that can't be excluded under the Australian Customer Law. You're entitled to a replacement or refund if there's

a major failure and compensation for any other reasonably foreseeable loss or damage. You're also entitled to have the Kingsley product repaired or replaced if it fails to be of acceptable quality and the failure doesn't amount to a major failure.

6. Other consumer rights

The benefits to you under our warranty are in addition to any other rights and remedies you are entitled to under relevant consumer laws. Our warranty replaces any other warranty given by Kingsley or it's supplier in respect of the Kingsley product.

7. Terms

The following terms have the following meanings:

Term	Meaning
Product information	information about the Kingsley product which may be contained in any of the documentation provided with the Kingsley product, including safety instructions, installation instructions, operating instructions, owner's manual, service manual, labels and packaging
Purchase date	the date you purchased the Kingsley product from a Kingsley outlet, as specified in the purchase receipt
Kingsley outlet	an outlet authorised by Kingsley to sell Kingsley products
Kingsley products	products or components which Kingsley manufacturers or sells through Kingsley outlets
Warranty period	commences on and from the purchase date and ends as shown on each individual product.
We/Us	Kingsley Enterprises Pty Ltd (ABN 23 001 592 749) E: sales@kingsleyenterprises.com.au A: 6A Brooks Road, Ingleburn NSW 2565 P: 1800 654 767 W: www.kingsleyenterprises.com.au
You	the purchaser of the Kingsley product from a Kingsley outlet

BUSHRANGER

4x4 GEAR

bushranger.com.au



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