

## 14. Vehicle Recovery

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# 14.0 General Information



## **General Information**

### **RECOVERY-MATE PRODUCTS**

### **WARNING**

- The use of recovery equipment can be dangerous.
- · Always ensure correct recovery procedures are followed.
- Incorrect recovery procedures or the use of damaged or inferior equipment can cause serious damage, injury or death.
- It is important to correctly attach a strap to a 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 vehicle and striking and seriously injuring or killing a person. Only attach the snatch strap to a vehicle recovery point or device that is suitably rated for use with the snatch strap. Incorrect use has previously resulted in serious injury or death.

### **Inspection Before Use**

Recovery products should always be inspected before use. The following signs of damage should be looked for during inspections:

- External wear caused by dragging over rough surfaces.
   This causes an opening out of surface fibres and is a cause
   of weakness. The outer faces of webbing may become so
   worn that yarns in the weave are severed.
- Local abrasion any substantial local abrasion must be viewed critically. Local abrasion is caused by movement over sharp edges while the strap is under tension.
- 3. *Cuts and contusions* may be indicated by local rupturing or loosening of the yarns.
- Internal wear particles of grit and dirt can penetrate straps and webbing and cause internal wear with repeated flexing of the strap during use.
- Sunlight degradation Prolonged exposure to ultraviolet radiation will weaken fibres. Never leave your equipment exposed to sunlight for long periods of time. Sunlight degradation can be indicated by fibres having a furry appearance.
- Label damage The label should always be legible. Recovery-Mate snatch straps have an overload indicator built into the label. Do not use the strap if the indicator is exposed.
- Deterioration of stitching Popped or broken stitches should also be viewed critically and the strap should be discarded if the damage is enough to compromise the integrity of the strap.
- Damage to eyes The eyes of a snatch strap, winch extension strap or tree trunk protector are an area where damage can occur and they should be carefully inspected before use. Recovery-Mate equipment has reinforced eyes to ensure as long a working life as possible.

### Inspection of other rigging accessories.

All other rigging accessories such as shackles, hooks, chain, wire rope, snatch blocks and recovery winches should also be inspected for any signs of deformation, excessive wear or abrasion, cracks, nicks, gouges and corrosion. If any of these signs are evident during inspection the items should be discarded and not used. A detailed list of inspection criteria for each rigging accessory is outlined in this catalogue.

#### Care In Use

It is essential that the following safety procedures be followed when recovering a vehicle:

- Always ensure you fully understand the correct recovery procedures associated with the use of the equipment before recovery is attempted. A practical demonstration, video or book from a reputable 4WD training instructor is highly recommended.
- Always drape a heavy bag, blanket, small tarpaulin or similar over a snatch strap during use to reduce any unintentional rebound of the strap.
- 3. Never exceed the breaking strength of equipment.
- 4. Never use tree trunk protectors or winch extension straps as snatching equipment.
- 5. Always attach the strap to the vehicle chassis towing points or other approved and rated tow points.
- Ensure straps are not twisted or knotted when used in a recovery procedure.
- Straps should not be exposed to sharp corners, acids or excessive heat.
- Straps and tree trunk protectors should be kept clean using soap/detergent and warm water and should be allowed to dry before storage.
- Snatch straps, tree trunk protectors and winch extension straps should be coiled up when stored and the use of a canvas bag such as the Recovery-Mate Snatch Strap, Basic or Full Recovery Kit bag is highly recommended.
- Never lift with a snatch strap, tree trunk protector or winch extension strap. This equipment is not designed for lifting applications.
- 11. Do not use snatch straps for conventional vehicle towing applications.
- Recovery-Mate Snatch Straps are manufactured from Nylon fibres. Nylon does absorb water and as such when the snatch strap is saturated with water both strength and stretch are reduced.
- Always wear gloves when handling recovery equipment, particularly wire rope.
- 14. Spectators should always be cleared at least 50m from the area before a recovery procedure takes place.
- 15. Any associated rigging such as shackles, chains, hooks, wire ropes, snatch blocks etc must have a breaking load suitable for the intended vehicle recovery, and have a breaking load equal to or in excess of the recovery equipment.
- 16. Never use any rigging accessories that are not rated or intended for the purpose. Nobles recommend rigging accessories as follows:
- Shackles Nobles "Blue Pin" Grade S bow shackles to Australian Standard 2741.
- Chain and Hooks Nobles Grade 70 chain and components to Australian Standard 4344
- Creeper (Recovery) Winches Nobles Rig-Mate Creeper Winches to Australian Standard 1418.2



# 14.1 Heavy Duty Strops



## **Recovery-Mate 4WD Recovery Strops**

Nobles RECOVERY-MATE Heavy-Duty Rubber Coated Snatch Strops are made in Australia and are ideal for recovery operations of 4wd and light commercial vehicles. These Snatch Strops are made from high strength, load bearing Nylon 6.6 fibres which are encased in a durable cut and abrasion resistant rubber.

RECOVERY-MATE Strops are tough enough for the most arduous of recovery or towing operations and are available with either a soft eye or thimble eye each end for easy attachment to tow points, shackles or hooks etc. RECOVERY-MATE Strops are also easy to handle as they have an excellent strength to weight ratio.

Special features of Nobles RECOVERY-MATE Nylon Strops:

Durable rubber cover resists cutting and abrasion and the high strength Nylon fibre core has excellent inherent stretch characteristics (up to 20%) and this assists in recovery operations

Each strop has the capacity clearly marked on an attached tag and has an individual serial number ensuring traceability through the Nobles Quality System

The soft eyes and relative light weight and flexibility of the strops allow for easy and flexible installations in difficult terrain or areas where access is tight or awkward

RECOVERY-MATE strops are virtually maintenance free as the core is sealed against water, oil, dust, grit and other contaminants Excellent durability compared to traditional webbing snatch straps

Maximum GVW is the maximum recommended gross vehicle weight of a severely bogged vehicle for a given tow strop.





Name	ITEM #	Breaking Load (tonnes)	Length (m)	Maximum GVW Severely Bogged Vehicle (tonnes)	Weight (kg)
Recovery Tow Strop Recovery mate Nylon 8t 20m	10555	8	20	5	11
Recovery Tow Strop Recovery Mate 8t 10m Thimble Eyes Each End	15216	8	10	5	6
Recovery Tow Strop Recovery Mate Nylon 8t 6m	19296	8	6	5	4
Recovery Tow Strop Recovery Mate Nylon 8t 15m With Thimble Eyes Each End	26329	8	15	5	8
4wd Recovery Strop with Thimble Eyes Each End 12t x 10m		12	10	8	8
4wd Recovery Strop with Thimble Eyes Each End 12t x 15m		12	15	8	11
Recovery Tow Strop Recovery Mate 12t 20m Thimble Eyes Each End	17280	12	20	8	14
Recovery Tow Strop 12t 6m Thimble Eyes Each End	17788	12	6	8	6



### **Heavy Duty Nylon Recovery Strops**

Nobles RECOVERY-MATE Heavy Duty Nylon Strops are ideal for vehicle recovery or towing operations ranging from 4wd and light commercial vehicles through to heavy commercial, mining and military vehicles. The strops range in capacity from 8 to 100 tonne so there will be a RECOVERY-MATE tow strop to suit almost any recovery or towing application.

RECOVERY-MATE Nylon Strops are made from high strength, load bearing Nylon 6.6 fibres which are encased in durable cut and abrasion resistant rubber.

RECOVERY-MATE strops are tough enough for the most arduous of recovery or towing operations and they come standard with thimble eyes for extra protection at the critical load bearing area. Soft eye strops are also available on special request if required. The thimble eyes allow for easy attachment to tow points, shackles or hooks etc. RECOVERY-MATE Nylon Strops are also easy to handle as they have an excellent strength to weight ratio.

Special features of Nobles RECOVERY-MATE Nylon Strops:

Durable rubber cover resists cutting and abrasion

The high strength Nylon fibre core has excellent inherent stretch characteristics (up to 20%) and this assists in recovery operations Each strop has the capacity clearly marked on an attached tag

Each strop has an individual serial number ensuring traceability through the Nobles Quality System

The relative light weight and flexibility of the strops allow for easy and flexible installations in difficult terrain or areas where access is tight or awkward

RECOVERY-MATE tow strops are virtually maintenance free as the core is sealed against water, oil, dust, grit and other contaminants Durability is far in excess of other synthetic webbing products such as snatch straps or round slings

RECOVERY-MATE tow strops are available in four standard lengths

Maximum GVW is the maximum recommended gross vehicle weight of a severely bogged vehicle for a given tow strop.





Name	ITEM #	Breaking Load (tonnes)	Length (m)	Maximum GVW Severely Bogged Vehicle (tonnes)	Weight (kg)
Recovery Tow Strop Recovery mate Nylon 8t 20m	10555	8	20	5	11
Recovery Tow Strop Recovery Mate Nylon 8t 6m	19296	8	6	5	4
Recovery Tow Strop Recovery Mate Nylon 8t 15m With Thimble Eyes Each End	26329	8	15	5	8
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End 8t x 3m		8	3	5	3
Recovery Tow Strop Recovery Mate 8t 10m Thimble Eyes Each End	15216	8	10	5	6
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		12	3	8	4
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		12	10	8	8
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		12	15	8	11
Recovery Tow Strop Recovery Mate 12t 20m Thimble Eyes Each End	17280	12	20	8	14
Recovery Tow Strop 12t 6m Thimble Eyes Each End	17788	12	6	8	6

Recovery Tow Strop 20t 6m Thimble Eyes Each End	10981	20	6	15	8
Recovery Tow Strop Recovery Mate Nylon 20t 15m	13231	20	15	15	16
Recovery Tow Strop 20t 10m Thimble Eyes Each End	13577	20	10	15	12
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		20	20	15	21
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		30	15	20	25
Recovery Tow Strop Recovery Mate 30t 10m Thimble Eyes Each End	18946	30	10	20	18
Recovery Tow Strop Recovery Mate Nylon 30t 6m	15052	30	6	20	12
Recovery Tow Strop 30t 20m Thimble Eyes Each End	10674	30	20	20	30
Recovery Tow Strop 50t 6m Thimble Eyes Each End	15355	50	6	35	20
Recovery Tow Strop Recovery Mate Nylon 50t 10m	16251	50	10	35	32
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		50	15	35	42
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		50	20	35	56
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		70	6	50	25
Recovery Tow Strop Recovery Mate Nylon 70t 10m	14480	70	10	50	40
Recovery Tow Strop 70t 20m Thimble Eyes Each End	18368	70	20	50	77
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End 70t x 15m		70	15	50	58
Heavy Duty Nylon Recovery Strop with Thimble Eyes Each End		100	6	70	36

Recovery Tow Strop 100t 20m Thimble Eyes Each End	18518	100	20	70	102
Recovery Tow Strop 100t 15m	10157	100	15	70	79
Recovery Tow Strop Recovery Mate Nylon 100t 10m	13452	100	10	70	55



## **Heavy Duty Kevlar Recovery Strops**

Nobles RECOVERY-MATE Heavy Duty Kevlar Strops are ideal for plant and vehicle recovery and towing or pulling operations of heavy commercial, mining and military vehicles and plant. The Kevlar strops range in capacity from 30 to 300 tonne so there is a RECOVERY-MATE strop to suit most heavy duty applications.

RECOVERY-MATE Kevlar Strops are made from technologically advanced high strength Kevlar fibres which are encased in durable cut and abrasion resistant rubber.

RECOVERY-MATE Kevlar Strops are tough enough for the most arduous conditions and they feature a round steel thimble eye that is sized to take a Grade S Shackle pin and designed to protect the Kevlar fibres at the eye ends to ensure an appropriate bending radius is maintained even under maximum load. Non standard lengths and thimble eye options can be made to order to further add value and flexibility to the RECOVERY-MATE range of Kevlar strops.

Special features of Nobles RECOVERY-MATE Kevlar Strops:

Durable rubber cover resists cutting and abrasion

Kevlar strops have extremely high strength and minimal elongation (4% at breaking load)

The light weight and flexibility of Kevlar strops ensure easy handling and a high strength to weight ratio

Each strop has the capacity clearly marked on an attached tag

Each strop has an individual serial number which is traceable through the Nobles Quality System

RECOVERY-MATE Strops are virtually maintenance free as the core is sealed against water, oil, dust, grit and other contaminants

Durability is far in excess of other synthetic webbing or fibre rope products

RECOVERY-MATE Strops are available in four standard lengths ranging from 6m to 20m but they can be manufactured to order in non-standard lengths as required.

Maximum GVW is the maximum recommended gross vehicle weight of a severely bogged vehicle for a given tow strop.





Name	ITEM #	Breaking Load (tonnes)	Length (m)	Maximum GVW Severely Bogged Vehicle (tonnes)	Weight (kg)
Recovery Tow Strop Recovery Mate Kevlar 30t 6m	11102	30	6	20	11
Recovery Tow Strop Recovery Mate Kevlar 30t 10m	17094	30	10	20	16
Recovery Tow Strop Recovery Mate Kevlar 30t 15m	20118	30	15	20	24
Heavy Duty Kevlar Recovery Strop with Thimble Eyes Each End		30	20	20	28
Recovery Tow Strop Recovery Mate Kevlar 50t 20m	18725	50	20	35	36
Recovery Tow Strop Recovery Mate Kevlar 50t 6m	18949	50	6	35	13
Recovery Tow Strop Recovery Mate Kevlar 50t 10m	16672	50	10	35	20
Recovery Tow Strop Recovery Mate Kevlar 50t 15m	14539	50	15	35	27
Recovery Tow Strop Recovery Mate Kevlar 70t 15m	10028	70	15	50	33
Recovery Tow Strop Recovery Mate Kevlar 70t 10m	11741	70	10	50	28
Recovery Tow Strop Recovery Mate Kevlar 70t 20m	15137	70	20	50	44
Recovery Tow Strop Recovery Mate Kevlar 70t 6m	18145	70	6	50	18
Recovery Tow Strop Recovery Mate Kevlar 100t 15m	18456	100	15	70	40

Recovery Tow Strop Recovery Mate Kevlar 100t 10m Thimble Eyes Each End	16511	100	10	70	35
Recovery Tow Strop Recovery Mate Kevlar 100t 20m	26596	100	20	70	56
Recovery Tow Strop Recovery Mate Kevlar 100t 6m	17966	100	6	70	24
Recovery Tow Strop Recovery Mate Kevlar 150t 6m	15529	150	6	100	25
Recovery Tow Strop Kevlar 150t 15m	18593	150	15	100	50
Recovery Tow Strop Recovery Mate Kevlar 150t 10m	12104	150	10	100	37
Recovery Tow Strop Kevlar 150t 20m	14973	150	20	100	65
Recovery Tow Strop Recovery Mate Kevlar 200t 10m	14544	200	10	150	44
Recovery Tow Strop Recovery Mate Kevlar 200t 15m	12416	200	15	150	59
Recovery Tow Strop Recovery Mate Kevlar 200t 6m	17225	200	6	150	32
Heavy Duty Kevlar Recovery Strop with Thimble Eyes Each End		200	20	150	77
Heavy Duty Kevlar Recovery Strop with Thimble Eyes Each End		300	15	200	86
Recovery Tow Strop Kevlar 300t 20m	19464	300	20	200	112
Recovery Tow Strop Kevlar 300t 6m	11774	300	6	200	45
Recovery Tow Strop Recovery Mate Kevlar 300t 10m	14923	300	10	200	59

# 14.2 Recovery Mate Straps



## **Recovery-Mate Snatch Straps**

Recovery-Mate Snatch straps are made from 100% high stretch (27.5%) nylon, are rot and mildew resistant and have reinforced eyes. Snatch Straps are manufactured in Australia to the highest quality standards. A snatch strap is an essential accessory for any 4WD that ventures off road.

Snatch straps are manufactured from 100% Nylon webbing. Nylon has very high stretch (can be in excess of 25% at breaking load) and as such is an excellent material for the snatching recovery of a vehicle.



Name	ITEM #	Minimum Breaking Load (kg)	Width (mm)	Length (m)	Weight (kg)
Snatch Strap Recovery Mate 75mm 9m	12692	10000	75	9	2.7
Snatch Strap Recovery Mate 75mm 15m	15506	10000	75	15	3.6
Snatch Strap Recovery Mate 75mm 12m	16546	10000	75	12	3.2
Snatch Strap Recovery Mate 60mm 9m	14774	8000	60	9	2.4
Snatch Strap Recovery Mate 60mm 15m	14639	8000	60	15	3.2
Snatch Strap Recovery Mate 60mm 12m	14620	8000	60	12	2.8
Snatch Strap Recovery Mate 50mm 9m	11206	6500	50	9	2.3



## **Recovery-Mate Tree Trunk Protectors**

Nobles RECOVERY-MATE Tree Trunk Protectors are manufactured in Australia to the highest quality standards. A tree trunk protector is a vital accessory for any 4WD that ventures off road.

Tree trunk protectors are manufactured from 100% Polyester webbing. Polyester has low stretch and is both lightweight and durable. The Recovery-Mate tree trunk protector has a 12,000kg breaking load and is designed to be slung around a tree for use as an instant anchor point.

The 75mm wide webbing is kind to the tree and prevents the possibility of ring barking, which is common when wire rope or chain is used.



## **Product Specifications**

Name	ITEM #	Minimum Breaking Load (kg)	Width (mm)	Length (m)	Weight (kg)
Tree Trunk Protector 75mm 5m	15457	12000	75	5	2.2
Tree Trunk Protector 75mm 3m	15801	12000	75	3	1.5



## **Recovery-Mate Winch Extension Straps**

Nobles Recovery-Mate winch extension straps are made from 100% low stretch polyester and have reinforced eyes.

Nobles RECOVERY-MATE Winch Extension Straps are manufactured in Australia to the highest quality standards. A winch extension strap is a useful accessory for any 4WD that ventures off road. Polyester has low stretch and is both lightweight and durable. The Recovery-Mate winch extension strap has a 4,500kg breaking load and is designed to extend the length of your winch wire rope enabling greater flexibility and increased options for vehicle recovery.



## **Product Specifications**

Name	ITEM #	Minimum Breaking Load (kg)	Width (mm)	Length (m)	Weight (kg)
Winch Extension Strap 50mm 4.5t 10m	17466	4500	50	10	1.8
Winch Extension Strap 50mm 4.5t 20m	19244	4500	50	20	3.5
Winch Extension Strap 50mm 30m	16486	4500	50	30	5.3



## **Recovery-Mate 4wd Tow Straps**

Nobles RECOVERY-MATE tow straps are made from 100% high stretch nylon and have reinforced eyes.



## **Product Specifications**

Name	ITEM #	Minimum Breaking Load (kg)	Width (mm)	Length (m)	Weight (kg)
Tow Strap 50mm 4m	13058	6000	50	4	1.2
4wd Tow Strap		6000	50	3	0.9

# 14.3 Recovery Kits



## **Recovery-Mate Full Recovery Kit**

Includes:

Item Description

Snatch Strap; 60mm (8,000 kg) x 9m long Snatch Strap made from 100% high stretch (27.5%) nylon. Straps are rot and mildew resistant and have reinforced eyes

Extension Strap; 50mm (4,500 kg) x 20m long Winch Extension Strap made from 100% low stretch polyester. Straps have reinforced eyes

Tree Trunk Protector; 75mm (12,000 kg) x 3m long Tree Trunk Protector made from 100% low stretch polyester. Straps have reinforced eyes

Shackles; 2 x 16mm Grade S bow shackles. 3.25 tonne WLL

Drag Chain; 8mm x 5m gold passivated Grade 70 chain with lug-link one end and grab hook other end

Snatch Block; 8,000 kg capacity block with 125mm diameter sheave with bronze bush and grease nipple. Suits up to 11mm diameter wire rope

Bag; Heavy duty canvas bag including pockets for block and tree trunk protector, zip pocket for drag chain, loops for shackles and clip closure



## **Product Specifications**

Name	ITEM #	Weight (kg)
Recovery Kit Recovery Mate Full	23057	14.3



## **Recovery-Mate Basic Recovery Kit**

Includes:

Item Description

Snatch Strap; 60mm (8,000 kg) x 9m long Snatch Strap made from 100% high stretch (27.5%) nylon. Straps are rot and mildew resistant and have reinforced eyes.

Winch Extension Strap; 50mm (4,500 kg) x 20m long Winch Extension Strap made from 100% low stretch polyester. Straps have reinforced eyes.

Shackles; 2 x 16mm Grade S bow shackles. 3.25 tonne WLL.

Bag; Heavy canvas bag including pockets for each strap, loops to secure shackles and velcro closure



## **Product Specifications**

Name	ITEM #	Weight (kg)
Recovery Kit Recovery Mate Basic	23187	7.9



## **Recovery-Mate Snatch Strap Kit**

Includes:

Item Description

Snatch Strap; 60mm (8,000 kg) x 9m long Snatch Strap made from 100% high stretch (27.5%) nylon. Straps are rot and mildew resistant and have reinforced eyes.

Shackles; 2 x 16mm Grade S bow shackles. 3.25 tonne WLL.

Bag; Loops to attach and retain shackles, strap to retain snatch strap, velcro closure



## **Product Specifications**

Name	ITEM #	Weight (kg)
Recovery Kit Recover Mate Snatch Strap	23324	4.3

# 14.4 Recovery Accessories



## **RIG-MATE**

## **Rig-Mate Recovery Winch**

The Nobles RIG-MATE Creeper Winch is designed to be lightweight and extremely durable. RIG-MATE creeper winches are very versatile, can be used at any angle and are not restricted in rope length. Nobles can make up non-standard rope lengths as required. The winch functions by the simultaneous use of two jaws. One jaw locks on the rope while the other pulls in turn.

RIG-MATE creeper winches can be used in a variety of applications including construction and 4WD recovery.

Special features of RIG-MATE creeper winches include:

Safety shear pins to prevent overloading

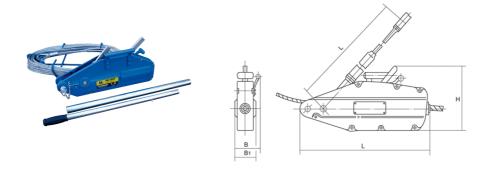
Aluminium body ensures light weight, durability and corrosion resistance

All winches are fully proof load tested at manufacture

Dual rated for pulling of lifting applications

Low operating effort

Appropriate swivel hooks are available if the winch is used in a lifting application



Name	ITEM #	Lifting WLL (tonnes)	Pulling Capacity (tonnes)	Wire Dia (mm)	Rope Length (m)	Rated Forward Handpower (N)	Handle Length (mm)	Dimension LxB1xH (mm)	Weight (kg)
Creeper Winch Rigmate 800kg With Rope x 20m	18833	0.8	1.25	8	20	<=284	825	428 x 64 x 235	6
Creeper Winch Rigmate 1600kg With 20m Rope	17636	1.6	2.5	11	20	<=441	1200	545 x 97 x 286	12
Creeper Winch Rigmate 3200kg With Rope x 20m	12367	3.2	5	16	20	<=441	1200	660 x 116 x 350	23

### General

Creeper winches are designed for pulling, lifting or lowering loads. They use a wire rope that is levered through the machine. Creeper winches are versatile machines and can be utilised in many applications.

### **Principle of Operation**

Most creeper winches work by the same general principle, regardless of size or capacity. They utilise two sets of jaws that open and close in turn enabling the rope to be pulled through by one set of jaws while the other set of jaws hold the wire rope in position and stop it slipping backwards under load.

The creeper winch principle is similar to a person pulling on a rope. One hand holds the rope while to the other hand pulls in turn.

### **WARNING**

- If the winch is to be used for a lifting application an approved lifting hook must be fitted to the wire rope. The hook must be fitted with a bearing that is capable of swivelling with the rated lifting capacity of the winch applied.
- Nobles creeper winches come standard with alloy eye hooks that are rated for and suitable in pulling or winching applications only. Please refer to Nobles if the winch is to be used in a lifting application.

### **Inspection Before Use**



· Creeper winches should be inspected before each use.

## The pre-use inspection for Rig-Mate creeper winches should include the following:

### Winch Body

- Check that the winch has its identification plate displaying the WLL.
- Ensure the shear pins are intact and located correctly in the lower section of the operating levers. Spare shear pins are provided with new units at the time of purchase.
- Check operation of the forward and reverse operating levers. They should operate smoothly and without sticking.
- Generally check the winch for any signs of wear, damage, abuse, corrosion, cracking or distortion. Check also that all nuts and bolts are secure.
- 5. Check the handle for signs of distortion and that it is the correct size and type for the model winch.
- Check the anchor point for wear, distortion, cracks and corrosion.

### Wire Rope

- 1. Check the tapered end of the wire rope.
- Check the wire rope for any signs of excessive wear, corrosion and kinking.
- Check the ferrule for any signs of cracking, distortion or other damage.
- 4. Check the hook to ensure the safety catch is intact and that there is no deformation, excessive wear or corrosion.

### Care In Use

### **WARNING**

- Creeper winches should always be used in line with good lifting and rigging practice and as per the manufacturers recommendations.
- Incorrect Creeper winch use could result in a dangerous situation that could cause property damage, serious injury or death.
- Rig-Mate Creeper winches should only be operated with the manufacturers recommended rope or an approved equivalent.
   The ropes are specifically designed to suit the jaws in the creeper winch and are non-standard diameters.
- Rig-Mate creeper winches will not operate safely or efficiently if the manufacturers rope is not used.
- Always read and ensure you understand the owners manual and safety instructions before operating the winch.
- 2. Never lift or pull a load in excess of the winch capacity.
- 3. Conduct minor operational test before use if possible.
- 4. Only shear pins supplied by the manufacturer should be used. Never mix and match shear pins from other brands of creeper winches or replace pins with any other material. Shear pins are designed to fail to prevent the operating lever from being subjected to excessive overloading.
- Always use the genuine wire rope as recommended by the manufacturer or an approved equivalent. Do not mix and match wire ropes from other brands of creeper winches. Wipe the wire rope clean before using in the winch.
- Ensure that the winch is well lubricated. For lubrication instructions refer to the manufacturers operating manual.
- Do not use kinked rope, as this will cause the winch to malfunction. If the rope is kinked it should be replaced before the winch is used.
- Ensure all slings and accessories used to lift or pull the load and anchor the winch are of sufficient strength and are suitable for the purpose. All slings and accessories used with creeper winches should be rated and comply to Australian Standards.
- The wire rope should be handled with care and should be reeled and unreeled in a straight line to prevent loops or kinks occurring. The wire rope should always be reeled up after use.
- 10. The wire rope should be lubricated from time to time with an approved wire rope lubricant.
- 11. The winch and the rope should be stored in a clean, dry and airy environment where it will be free from contamination.
- 12. Use only the hand lever provided with the winch and do not use extension or cheeter bars to gain more leverage. If the winch cannot be operated with the correct handle then it is being overloaded.
- 13. Ensure there is no deflection in the rope when under load. If the rope needs to be deflected or the capacity doubled to two falls then only an approved sheave or snatch block should be used. The snatch block should be of adequate WLL and the sheave should be of suitable diameter and grooving.
- 14. The creeper winch wire rope should not be allowed to rotate under load. This could result in the wire rope unlaying.



## **Recovery-Mate Off Road Blocks**

Nobles RECOVERY-MATE Off Road Blocks are an essential accessory for any off roader. Off Road Blocks are designed to be used with either the 800kg or 1600kg RIG-MATE Recovery Winch or a vehicle mounted power winch.

The use of an Off Road Block allows the capacity of a winch to be doubled by utilising two parts of line instead of one. It is also essential for deflecting the winch rope when winching around corners or at difficult angles.



## **Product Specifications**

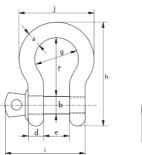
Name	ITEM#	Minimum Pulling Load (kg)	Sheave Diameter (mm)	Suits Wire Rope (mm)	Weight (kg)
Offroad Block 125mm	10294	8000	125	42958	3.8



## **Nobles Grade S Screw Pin Bow Shackles**

Nobles are a leading stockist of Grade S shackles which are ideal for 4wd recovery. The Nobles Blue Pin shackle is manufactured to comply with the requirements of Australian Standard 2741.







Name	ITEM #	WLL (tonnes)	Size a (mm)	i (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	j (mm)	Weight (kg)
Shackle Bow 330kg 5mm Grs Blue Screw Pin Galvanised	14302	0.33	5	30	6	14	5	10	22	15	36	25	0.02
Shackle Bow 500kg 6mm Grs Blue Screw Pin Galvanised	17105	0.5	6	38	8	17	6	12	29	20	48	32	0.05
Shackle Bow 750kg 8mm Grs Blue Screw Pin Galvanised	11547	0.75	8	47	10	21	8	13	31	21	56	37	0.1
Shackle Bow 1t 10mm Grs Blue Screw Pin Galvanised	11355	1	10	54	11	25	10	17	37	26	63	46	0.14
Shackle Bow 1.5t 11mm Grs Blue Screw Pin Galvanised	10486	1.5	11	60	13	27	11	18	43	29	74	51	0.19
Shackle Bow 2t 13mm Grs Blue Screw Pin Galvanised	10434	2	13	73	16	33	13	21	48	33	89	59	0.36
Shackle Bow 3.25t 16mm Grs Blue Screw Pin Galvanised	14075	3.2	16	89	19	40	16	27	61	43	110	75	0.63
Shackle Bow 4.75t 19mm Grs Blue Screw Pin Galvanised	12407	4.7	19	103	22	48	19	32	72	51	129	89	1.01
Shackle Bow 6.5t 22mm Grs Blue Screw Pin Galvanised	18626	6.5	22	119	25	54	22	37	84	58	144	102	1.5
Shackle Bow 8.5t 25mm Grs Blue Screw Pin Galvanised	13760	8.5	25	137	29	60	25	43	95	68	164	118	2.21



## **Recovery-Mate Drag Chain Kits**

Nobles RECOVERY-MATE Grade 70 Drag Chain Kits come in resealable poly buckets for easy storage. Our Drag chains and components are gold passivated for corrosion protection and cleanliness. Nobles Grade 70 drag chain and components are manufactured to comply with the requirements of Australian Standard 4344 and as such they are subjected to batch testing to confirm compliance.

The standard drag chain kits comes complete with:

5m of 8mm Grade 70 chain

- 1 x clevis cradle grab hook
- 1 x lug-link
- 1 x poly bucket



## **Product Specifications**

Name	ITEM#	Weight (kg)
Chain Assembly Gr70 Drag Chain Kit 8mm In a Bucket	22993	9.6

# 14.5 Supermax Rope



## SuperMax Rope

SuperMax is the latest development in ultra high molecular weight polyethylene (UHMWPE) fibre braided rope. SuperMax has the strongest tensile strength per weight and is stronger than wire rope of the same diameter. SuperMax is treated with a unique coating and special heat treatment process to enhance its anti-abrasion characteristics.

12 Strand Construction

Melting point: 150°C

Specific Gravity: 0.97 (Float) Elongation at break: 4-5% Water Absorption: None UV resistance: Good

### Characteristics

Maximum strength to weight ratio, strength is comparable to steel wire rope

Lowest elongation

Longer life and easy handling

Superior abrasion resistance

Non-kinking and non-rotational

Easy to splice





Name	ITEM#	Size (mm)	Breaking Load (kg)	Weight per m
Supermax Rope 6mm 12 Strand Braided	14206	6	4200	0.023
Supermax Rope 8mm 12 Strand Braided	10002	8	6700	0.039
Supermax Rope 9mm 12 Strand Braided	18819	9	8400	0.048
Supermax Rope 10mm 12 Strand Braided	14052	10	10800	0.059
Supermax Rope 11mm 12 Strand Braided	12135	11	13600	0.078
Supermax Rope 12mm 12 Strand Braided	10347	12	16500	0.095
Supermax Rope 14mm 12 Strand Braided	14662	14	22000	0.128
16mm 12 STRAND BRAIDED SUPERMAX ROPE	21442	16	27500	0.16



# **General Information**

## FIBRE ROPES

FIBRE CONSTI	CONSTITUTION	DESCRIPTION	REACTION TO	SENSITIVE TO	RESISTANT	% ELON	GATION	SPECIFIC GRAVITY
			HEAT		то	DRY	WET	
TERYLENE, DACRON, ETC.	Polyester	Continuous filament and staple, abrasion resistance second to Nylon, excellent resistance to sunlight, weathering and	Melts at 260°C, leaves hard balls and has an aromatic smell.	concentrated ammonia, concentrated sulphuric acid.	Organic mineral and nitric acids, oxidising agents, dilute alkali.	Approx. 35% ext. causes rupture.	Approx. 35% ext. causes rupture.	1.38
		bacteria.			ullute alkali.	Wet streng to d	, ,	
VINYLON, KURALON, ETC.	Polyvinyl Alcohol	Continuous filament and staple, resistant to abrasion and bacteria, quite good resistance to sunlight although loses strength from prolonged exposure.	Will not burn yellows at 218°C melts at 235°C.	Concentrated mineral acids.	Common solvents and alkalis.	Approx. 40% ext. causes rupture in rope form.	Strength about 55-60% of dry strength.	1.30
POLYPROPYLENE	DLYPROPYLENE Polypropylene	Continuous filament and film. High strength, toughness and good resistance to sunlight if UV inhibitors are used. Unaffected by changes in relative humidity and water.	Shrinks rapidly from flame, curls and melts, ignites with difficulty. Has low melting point 166°C.	Bleaching agents (sodium hypochlorite), cleaning agents (trichlorethylene).	Most alkalis and acids, solvents and oxidising agents.	Rope 25-30% ext. causes rupture.	Same as dry.	0.91
						Wet strength equal to dry.		
POLYETHYLENE Tanikalon	Polyethylene	Continuous filament, very tough, fungi resistant.	Melts, shrinks and curls from flame then softens at 110°C. Burns rapidly.	Xylene at 93°C Deteriorates on very long exposure to sunlight or heat. Inhibitors may prevent this from happening. Hot	Most acids, alkalis, grease, oil, organic solvents and water.	Rope Approx. 50% ext. causes rupture.	Same as dry.	0.95
				nitric or sulphuric acids.			Wet strength equal to dry.	
MAN-MADE FIBRES NYLON, PERLON, ETC.	Polyamide (synthetic)	Continuous filament and staple, resistant to abrasion and bacteria. Transparent strong fibre of circular cross- section.	Will not burn. Softens at 235°C, melts at 250°C, leaves a bead and has celery smell.	Phenols, strong acids, concentrated formic acid, sunlight.	Acetone, organic solvents, mineral and/ or organic acids.	Nylon 6 23-42% ext. causes rupture.	27-34% ext. causes rupture.	1.14
						Wet strength approx. 10% less than dry.		



## **General Information**

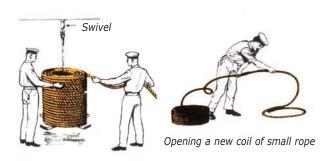
### **FIBRE ROPES**

### Inspection

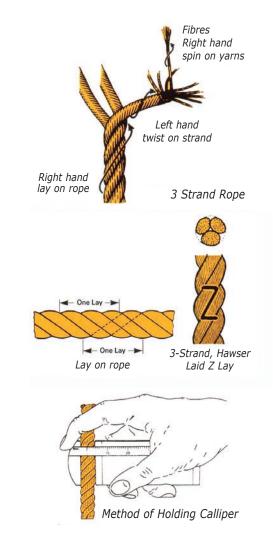
Rope should always be inspected prior to use to ensure there is no excessive wear, abrasion or cuts that could cause the rope to break prematurely.

### Care In Use

 A coil should be suspended and the rope taken from the outside of the coil by rotating it. In this way "turn" in the rope will be avoided



- 2. Where a proper mandrel or turntable is not available, it is advisable to uncoil the rope from the centre of the coil. In this way the protective wrappings may be retained around the coil until the complete coil has been withdrawn. For the normal right hand lay rope ("Z" laid), uncoiling must always take place in an anti-clockwise direction. (This applies whether uncoiling from inside or outside of the coil). Clockwise uncoiling of rope will insert twist and increase the danger of kinking.
- Before cutting the desired length of rope, apply whippings close to each side of the intended cut. Failure to observe this precaution could easily render a cut length unsuitable for its intended purpose because of excessive unlaying of the rope.
- 4. Store ropes in a well ventilated dry atmosphere away from heat, strong sunlight and corrosive substances.
- Avoid contact with chemicals unless the rope has been supplied in a material resistant to a particular chemical environment.
- Don't drag ropes over sharp, rough or dirty surfaces as abrasive particles can penetrate the rope and damage the fibres.
- Avoid the build-up of excessive turn. Kinks cause permanent damage and loss of strength. Work excessive turn over end of rope. Never load rope to remove kinks.
- Avoid knotting a rope for the purpose of forming an eye. Splice the rope in the normal manner. Knots can reduce a rope's strength by up to 50%.
- 9. When used on pulleys, ensure pulley diameter is at least 5 times rope diameter. Furthermore, the groove profile should support approximately one third of the rope's circumference. Incidence of rope wear and distortion will increase if these suggestions are not adhered to.
- 10. Avoid unnecessary chaffing. Protect any part of the rope in contact with sharp edges or rough bearing surfaces.
- Never overload a rope. The load applied should never exceed the Minimum Breaking Force, or in the case of lifting equipment, the Working Load Limit. Avoid shock loads.





### Three Strand Rope

Three strands twisted or laid together to form the rope. This construction is still the most commonly encountered. Available in sizes 3mm diameter upwards.



### **Eight Strand Rope**

Balance is achieved by plaiting four left hand and four right hand strands. This results in a tough, kink resistant rope providing increased flexibility wet or dry. Available in sizes 16mm diameter and above.



# 2 Ply Strand

### 12 Strand Rope

12 strand rope generally has superior strength to the equivalent rope in 3 or 8 strand. 12 strand rope also has excellent abrasian resistance, is more flexible, does not rotate or kink and is easy to coil and handle. 12 strand rope is fully splicable and is available in 1 ply or 2 ply strand.