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Functional Flowchart

Not Applicable

Objective

To provide a corporate standard that clearly outlines SCL's procedure for managing the hazards associated with the use of lifting equipment.

Scope

This corporate standard applies to workers using lifting equipment, or any situation in which a worker is required to undertake specific lifting activities within a SCL operated and / or maintained site.

Definitions

Dogger: a person who has obtained a Certificate of Competency from the relevant Statutory Authority who uses techniques including the selection or inspection of lifting gear to safely sling a load or direct a crane / hoist operator in the movement of a load when the load is out of the operator's view.

Dogging: the application of slinging techniques including the selection and / or inspection of lifting gear, or the directing of a crane / hoist operator in the movement of a load when the load is out of the operator's view.

Dunnage: packing used under loads.

Slinging techniques: the exercising of judgement in relation to the suitability and condition of lifting gear, and the method of slinging, by consideration of factors such as the nature of the load, its mass and its centre of gravity.

Sheave Block: an item of lifting equipment suitable for use with steel wire rope, natural fibre rope, synthetic filament rope, comprising essentially a body frame or block steel, a head fitting, one or more sheaves, an axle pin and, if fitted, a becket. (becket - the tail fitting on a block to which one end of rope used in the purchase may be fixed or anchored)

SWL: safe working load.

Worker: SCL worker or controlled contractor.

Responsibilities

OH&S Systems Manager

To maintain the currency and accuracy of the Lifting Equipment Corporate Standard reflective of legislative and corporate change

Station / Site Manager

To monitor the implementation of the Lifting Equipment Corporate Standard and allocate responsibilities and resources to ensure site-specific practices/procedures are developed to satisfy the Corporate Standard

Workers

To comply at all times with the requirements specified within this Corporate Standard and any site-specific procedures

Hazards

In relation to the selection, inspection and use of lifting equipment, a safe system has been implemented to control risks to health and safety arising from hazards and issues such as, but not limited to:

- + ▪ inadequate inspections;
- + ▪ inappropriate equipment selection or placement;
- + ▪ inappropriate estimation of load weight;
- work at height during slinging operations;
- failure of lifting equipment; and
- falling objects / loads.

Risk Assessment

Lifting hazards are to be assessed and managed:

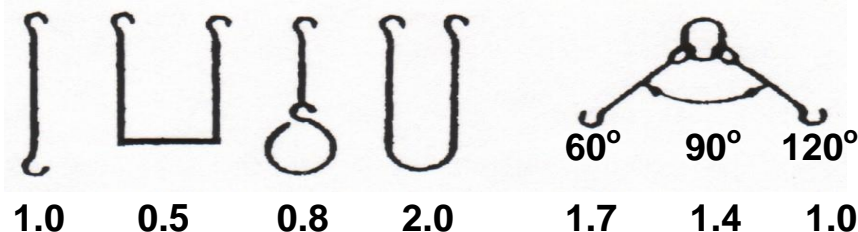
- as per a work method statement for the relevant work activity; and/or
- by a dogger.

Controls

Planning to Undertake Lifting Activities

1. Only licenced doggers are to undertake the following activities as part of lifting tasks:
 - selection of lifting equipment;
 - inspection of lifting equipment;
 - placement of lifting equipment; and
 - directing a crane / hoist operator in the movement of a load.
2. Work at heights required during slinging / lifting operations, is to be undertaken in accordance with [HB#560737: Falls and Falling Objects](#).
3. Precautions are to be taken to ensure that the type of slinging arrangement and angle created by the positioning of lifting equipment (e.g. sling/s) on a load does not decrease the capacity of the lifting equipment such that the load exceeds the SWL of the equipment.

Examples of Reduction in Safe Working Load (SWL)



Note: Refer to the relevant Australian Standard(s), for further information regarding correct positioning of lifting equipment.

Note: The SWL is to be clearly marked on all lifting equipment components (where applicable).

4. Where there is a risk of damage to lifting equipment, the load being lifted, or the supporting surface, packing or dunnage is to be placed between the lifting equipment and the load, or load and supporting surface as applicable.

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Note: Dunnage may also be required to evenly distribute the load over the supporting surface.

5. Sling protectors are to be used to protect chains or slings which may contact sharp edges during lifting activities.
6. Lifting equipment is to be configured in such a way as to avoid slippage and to evenly balance the load.
7. A larger sized chain or sling is to be used to ensure lifting equipment is adequate if / when:
 - the exact weight of the load is not known;
 - there is a risk of a shock loading on the lifting components;
 - conditions are abnormal or severe; and / or
 - there is an increased risk to personnel.
8. Lifting equipment that is identified as being damaged or malfunctioning is to be immediately removed from service, tagged out with a 'Caution – Out of Service' tag (refer also to [HB#570000: Safety Signs](#), for further details regarding safety tag requirements), and disposed of as soon as practicable. (Refer to Attachment 1 for specific requirements)

Specification / Identification

1. All lifting equipment used on SCL sites is to be designed, tagged / marked*, and used in accordance with the Australian Standards (where applicable) listed under [Links and References](#).

Note: Refer to Attachment 2 - Lifting Equipment Marking Requirements.

Chains

1. When making a chain sling, all chains, hooks, links and couplers are to be of the same grade, SWL, and in a good state of repair.
2. Where chains are used, the following is to be undertaken:
 - ensure regular inspection of chains for wear, nicks, gouges, stretch, localised bending and shearing;
 - loads are to be within the SWL of the chain;
 - do not use a chain in which the links are stretched, frozen or do not move freely;
 - do not use a chain that is gouged or worn more than 10% of the diameter;
 - do not twist, kink or knot a chain for shortening purposes;
 - do not shorten a chain by using nuts and bolts;
 - do not hammer a chain to straighten the links or to force into position;
 - do not allow loads to be set onto chains, or vehicles / mobile plant to be driven over chains;
 - do not drag chains across the ground where they may be worn;
 - do not use a chain with a link that is cracked, or has been spot welded other than by the manufacturer of the chain;
 - do not attempt to use Herc Alloy chain when the temperature exceeds 200°C unless heat reduction charts are used; and
 - protective padding is to be used on chains around sharp corners.

Note: Chains are not to be heated or heat-treated.

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Steel Wire Ropes

3. The following applies:
- careless uncoiling and handling of ropes is to be avoided;
 - do not kink ropes;
 - do not expose ropes to corrosive substances;
 - ropes are to be suitably oiled or greased to ensure sufficient lubrication;
 - ropes are to be fed or rolled out without slack and in a straight line from the reel to prevent kinking or disturbance of the lay;
 - reeled ropes are to be mounted on a spindle and securely anchored;
 - reels are to be effectively braked;
 - rope is not to be thrown off turns with coil or reel flat on the ground; and
 - torque of new ropes is to be regularly released under control until the rope has settled.

Sheave Blocks

4. The following applies:
- sheave blocks are to be periodically overhauled and lubricated;
 - sheave blocks are to be used in accordance with manufacturer specifications;
 - fit of rope in the grooves of the sheaves is to be examined to ensure the grooves are correct for the rope size;
 - examine safety latches for deformation;
 - examine nut or collar of shank to ensure that it is securely fastened and free from visible defects;
 - examine shank to ensure it is not distorted and turns freely;
 - examine side straps for wear such as fractures, stretching, distortion or wastage;
 - examine side / partition plates for any signs of buckling or distortion;
 - examine sheaves for surface defects and wear or tear to the bush and axles;
 - where provision is made for lubrication, ensure sheave block is adequately lubricated;
 - sheaves are not to be painted in such a manner that free movement is impaired or lubrication points or grease holes are choked. It is specially important that reference marks are not obliterated;
 - after exposure to temperatures exceeding 400°C, the sheave is to be disposed of.

Hooks / Rings

5. The following applies:
- hooks are to be fitted with a safety catch;
 - hooks to be used in a chain sling are to have at least the same SWL as the chain;
 - crane hooks are to be able to rotate freely at all times;
 - if a chain hook opening is stretched more than 5% it is to be disposed of;
 - no bent, distorted or stiff hooks are to be used;
 - welding or repairs are not to be performed on damaged hooks; and
 - hooks are not to have any attachments welded to them.
6. Where rings are used, the following is to be undertaken:
- rings are to have at least the same SWL as the chain, hook and other parts of any sling used;
 - if a ring is damaged or stretched more than 5%, it is to be disposed of; and
 - rings are not to be placed over a hook unless they can hang freely.

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Slings

7. Slings are to be used in accordance with the following:
 - allow slings, if wet, to naturally dry;
 - ensure slings are protected from sharp edges during lifting;
 - consult sling load charts for configurations not shown on tags;
 - ensure all relevant inspections are undertaken prior to use;
 - do not use slings that are not tagged;
 - do not drop slings from heights;
 - do not use sling if there is any sign of cuts, snagging, heat or chemical damage, excessive wear, or damaged seams;
 - do not tie knots in sling;
 - do not use sling if crossed or twisted around load;
 - do not expose slings to excessive temperatures; and
 - do not allow abrasive or other damaging grit etc., to penetrate the fibres of the sling.
- Note: Nylon slings will lose more than 10% of their strength if wet.

Shackles

8. The following applies:
 - shackles are to have at least the same SWL as the chain, hook and other parts of any sling used;
 - shackles are not to be used unless the markings are legible;
 - bolts and nuts are not to be used in place of the proper shackle pin;
 - shackles permanently attached to lifting devices are to have their pins secured by seizing or mousing;
 - any shackle that is bent, deformed, damaged or worn in the crown or pin by more than 10% is to be disposed of;
 - applications where movement of the load or rope may possibly unscrew the pin are to be avoided;
 - to prevent jamming, shackle pins are only to be tightened finger tight then released a quarter turn prior to use; and
 - only shackles that are large enough to accommodate large slings or multiple rings are to be used when lifting loads.

Spreader Bars and Lifting Beams

9. Design calculations for spreader bars and lifting beams are to be obtained from the manufacturer.
10. Spreader bars and lifting beams are to:
 - be engineer designed;
 - be operated in accordance with manufacturer's instructions; and
 - be designed so that the load remains stable.

Site Specific Management

Inspection & Maintenance

1. Lifting equipment is to be stored in a dedicated storage area (preferably off the ground), and protected from damage at all times. Note: purpose built hooks or stands may be used to store lifting equipment.
2. A licensed dogger is to inspect prior to use, and after any incident which may have caused damage, and maintain all SCL lifting equipment stored / used on site in accordance with manufacturer's recommendations, and relevant Australian Standards.
3. Synthetic slings are to be inspected by a licensed dogger at intervals not exceeding three (3) months.
4. A documented annual inspection and 'Fitness for Use' review is to be undertaken on all SCL owned lifting equipment by a competent person (i.e. Lifting Equipment Specialist).

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- + + 5. Details of 3 monthly and annual inspections are to be recorded in the site's Lifting Equipment Register.
- + 6. As part of this inspection, when inspecting synthetic slings, the most deteriorated synthetic sling is to be identified and subjected to a destruction test (at intervals of not more than twelve (12) months), to determine its breaking strength. If the sling has lost more than 10% of its breaking strength, the second most deteriorated sling is to undergo the destruction test. The process is to be repeated until a sling has not lost more than 10% of its breaking strength, then all other slings may be deemed acceptable for use.

Note: Any sling found to be below standard is to be removed from service, tagged out with a 'Caution – Out of Service' tag, and disposed of as soon as practicable.

- 7. A tag or other suitable identification marker is to be fitted to all lifting equipment by the Lifting Equipment Specialist that clearly identifies the item's currency with respect to its fitness for use.

Registers

- 8. A Lifting Equipment Register is to be maintained which is to include the identification, inspection and maintenance details / records for all lifting equipment components. An example of such a register is the [SCL Form: Lifting Equipment Register](#).

Training and Competency

- 1. Dogging work is only to be undertaken by persons holding a doggers licence (or the equivalent for the relevant state or territory), or by authorised trainees who are under the supervision of a person holding a doggers licence, in accordance with the Workplace Health and Safety Regulations for the particular state / territory.

Note: In Queensland, a competent person whose work is primarily the maintenance, servicing or repair of plant may perform lifting equipment selection, inspection and slinging tasks not involving lifting a load of more than 1 tonne.

- 2. Training as per [HB#794283: HS028 – Lifting Equipment Awareness Training Rationale](#) is to be provided.

Review

This Corporate Standard is reviewed **3** yearly.

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Links and References

[HBIRDPRO-#692253-ATW FALLS & FALLING OBJECTS](#)

[HB#560737: Falls and Falling Objects](#)

[HBIRDPRO-#692247-HS&E HAZARD MANAGEMENT ATW](#)

[HBIRDPRO-#537700-HS&E Hazard Management](#)

[HB#570000: Safety Signs](#)

[SCL Form: Lifting Equipment Register](#)

[SCL Form: Work Method Statement Form \(WMS\)](#)

[HB#623750: Lifting Equipment Awareness Training](#)

[HB#794283: HS028 – Lifting Equipment Awareness Training Rationale](#)

QLD Workplace Health & Safety Regulation 2008

QLD Plant Code of Practice, 2005

QLD A Guide for Doggers (QLD Government – Department of Industrial Relations)

NOHSC **1006:2001** National Occupational Health and Safety Certification Standard for Users and Operators of Industrial Equipment

NOHSC **1010:1994** National Standard for Plant

AS 1353: 1997 Flat Synthetic-Webbing Slings (Parts 1 and 2)

AS 1380: 1998 Fibre-Rope Slings (Parts 1 and 2)

AS 1394: 2001 Round Steel Wire for Ropes

AS 1438: 1998 Wire-Coil Flat Slings (Parts 1 and 2)

AS 1666: 1995 Wire-Rope Slings (Parts 1 and 2)

AS 2321: 2006 Short-Link Chain for Lifting Purposes

AS 2741: 2002 Shackles

AS 2759: 2004 Steel Wire Rope

AS 2089: **2008** Sheave Blocks for Lifting Purposes

AS 3569: 1989 Steel Wire Ropes

AS 3775: 2004 Chain Slings – Grade T

AS 3776: 2006 Lifting Components for Grade T Chain Slings

AS 3777: **2008** Shank Hooks and Large-eye Hooks – Maximum **60T**

AS 4497: 1997 Roundslings – Synthetic Fibre (Parts 1 and 2)

Attachments

[Attachment 1: Lifting Equipment Disposal Criteria](#)

[Attachment 2: Lifting Equipment Marking Requirements](#)

[Attachment 3: Wire Rope Construction Codes](#)

[Attachment 4: Broken Wire “Rule of Thumb”](#)

[Attachment 5: Audit Checklist](#)

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Attachment 1: Lifting Equipment Disposal Criteria Page 1 of 2

Lifting Equipment Component	Disposal Criteria – Equipment is to be immediately removed from service, tagged out with a ‘Caution – Out of Service’ tag, and disposed of as soon as practicable if:
Chain	<ul style="list-style-type: none"> ▪ if damaged; or if the SWL is not permanently marked or legible
Steel Wire Ropes	<ul style="list-style-type: none"> ▪ maximum percentage loss of breaking strength identified during certified physical tensile testing; ▪ maximum number of broken or cracked outer wires is reached (refer – <i>Attachment 3: Additional Information for Wire Ropes</i>); ▪ more than one-third wear of the rope diameter on outer wires; ▪ 15% loss in effective metallic area due to visible combined wire wear and broken or cracked wires; ▪ evidence of mechanical damage; ▪ corrosion damage identified by noticeable pitting or loosening of outer wires; ▪ evidence of complete strand fracture(s); ▪ rope has been exposed to extreme thermal effects or electrical arcing; ▪ rope has diminished to 85% or less of nominal rope diameter; ▪ rope is stretched or elongated; or ▪ rope is visibly deformed (i.e. kinked, bent, flattened, birdcaged, core extruded, scrubbed, local diameter increase or decrease or waviness).
Sheave Blocks	<ul style="list-style-type: none"> ▪ if damaged; or SWL is not permanently marked or legible
Hooks / Rings (other than shank hooks and large eye-hooks)	<ul style="list-style-type: none"> ▪ if damaged; or quality grade or SWL is not permanently marked or legible
Shank Hooks and Large Eye-Hooks	<ul style="list-style-type: none"> ▪ if damaged; or quality grade or SWL is not permanently marked or legible

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Lifting Equipment Component	Disposal Criteria – Equipment is to be immediately removed from service, tagged out with a ‘Caution – Out of Service’ tag, and disposed of as soon as practicable if:
Webb & Synthetic Slings	<ul style="list-style-type: none"> ▪ the label has been removed; ▪ there is damage to any sleeve or protective coating; ▪ a nylon sling comes into contact with acid; ▪ a polyester sling comes into contact with alkaline substances; ▪ a polypropylene sling comes into contact with organic solvent such as paint, coal tar or paint stripper; or ▪ there are visible cuts on the sling.
Chain Slings	<ul style="list-style-type: none"> ▪ the label has been removed; ▪ chain links are defective; or ▪ chain is damaged.
Wire-Coil Flat Slings	<ul style="list-style-type: none"> ▪ a dangerous condition is suspected; ▪ labels have been removed; ▪ any load-bearing wires are excessively damaged; ▪ wire-coils are not capable of free articulation; ▪ wire-coils are damaged by chemicals; or ▪ sleeve or protective coating is damaged.
Wire Rope Slings	<ul style="list-style-type: none"> ▪ shows detrimental corrosion; ▪ is kinked; or ▪ is known to have been severely overloaded.
Spreader Bars	<ul style="list-style-type: none"> ▪ if damaged; or ▪ if the SWL or self-weight is not permanently marked or legible
Shackles	<ul style="list-style-type: none"> ▪ if damaged; or f the SWL is not permanently marked or legible

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Attachment 2: Lifting Equipment Marking Requirements Page 1 of 3

Lifting Equipment Component	Marking Requirement	Information required
Chain	permanently and legibly marked at intervals of not more than 20 links or 1 metre (i.e. either raised or indented)	<ul style="list-style-type: none"> ▪ manufacturer's identification*; and ▪ grade. <p>Note: Manufacturer's identification may not be marked on all chains.</p>
Steel Wire Ropes	legibly marked with secured durable tags	<ul style="list-style-type: none"> ▪ manufacturer's identification code; ▪ length; ▪ diameter; ▪ construction; ▪ grade; ▪ gross mass of rope; and ▪ fitting and reel.
Sheave Blocks	permanently and legibly marked	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ nominal size of rope; ▪ rope material; ▪ material, grade and construction of rope; ▪ SWL; and ▪ identification marking to correlate sheave block to the test certificate*.
Hooks / Rings (other than shank hooks and large eye-hooks)	permanently and legibly marked (i.e. either raised or indented)	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ quality grade; and ▪ nominal size of chain with which the component is compatible.

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Lifting Equipment Component	Marking Requirement	Information required
Shank Hooks and Large Eye-Hooks	permanently and legibly marked (i.e. either raised or indented)	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ quality grade; ▪ SWL; and ▪ identification marking to correlate hook to the test certificate*.
Webb & Synthetic Slings	permanently and legibly tagged	<ul style="list-style-type: none"> ▪ SWL; ▪ fibre material (e.g. nylon, polyester, polypropylene, aramid polyamide); ▪ manufacturer's identification; ▪ month and year of manufacture; and ▪ identification to correlate the sling to the test certificate*. <p>Colour of labels on webb and synthetic slings are to be:</p> <ul style="list-style-type: none"> ▪ Nylon – green; ▪ Polyester – blue; ▪ Polypropylene – brown; and ▪ Aramid polyamide – yellow
Chain Slings	permanent and legible metal tag	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ quality grade; ▪ SWL for different applications; ▪ conditions of use; and ▪ identification marking to correlate the sling assembly to the test certificate*.

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Lifting Equipment Component	Marking Requirement	Information required
Wire-Coil Flat Slings	permanent and legible metal tag	<ul style="list-style-type: none"> ▪ SWL; ▪ SWLs for various configurations; ▪ manufacturer's identification; and ▪ identification marking to correlate the sling to the test certificate*.
Wire Rope Slings	permanent and legible tag	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ SWL; and ▪ identification marking to correlate the sling to the test certificate*.
Spreader Bars	Stamped - permanently marked -	<ul style="list-style-type: none"> ▪ SWL; ▪ Self-weight.
Shackles	permanently and legibly marked (i.e. either raised or indented)	<ul style="list-style-type: none"> ▪ manufacturer's identification; ▪ quality grade; ▪ SWL; and ▪ identification marking to correlate shackle to the test certificate*.

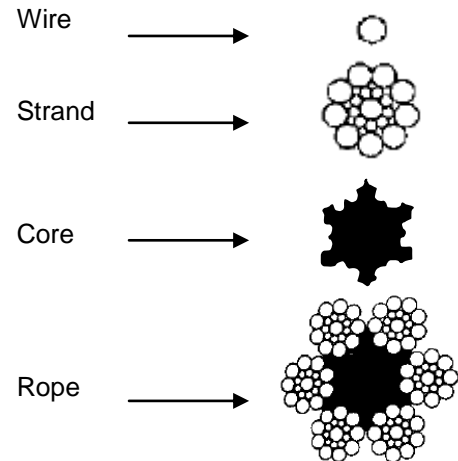
***Note: In many situations an identification marking correlating each lifting equipment component to a test certificate, will not be marked on the actual component itself. Manufacturer 'batch testing' of lifting equipment components (e.g. web slings, shackles, wire coil / rope slings, shackles etc.) is often carried out instead and is acceptable.**

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Attachment 3: Wire Rope Construction Codes

- Wire ropes are designated by a code system which includes information on the number of wires in each strand and how these wires lay together to form each strand, the number of strands in the rope, the type of core, the direction of lay of the wires in each strand, and the direction of lay on the strands to form the rope.
- For example, if we look at a fairly basic rope designation, we can determine its make up.

6 x 19 FC RH OL FSWR



6 = Number of strands in the rope

19 = Number of wires in each strand

FC = Fibre core

RH = Right hand (lay of strands to form the rope)

OL = Ordinary lay (of wires to form each strand)

FSWR = Flexible steel wire rope.

Remember that the number of strands or wires can vary considerably. FC could be replaced by IWR or IWRC meaning Independent Wire Rope Core. RH could be replaced by LH for Left Hand lay rope, and OL could be changed to LL to represent Lang's Lay.

Abbreviation of Rope Terms

Abbreviation	Meaning
FC	Fibre core
FSWR	Flexible Steel Wire Rope
FW	Filler Wire
IWR	Independent Wire Rope
IWRC	Independent Wire Rope core
J	Jute or Fibre
LH	Left hand
LL	Lang's Lay
NR	Non-Rotating
OL	Ordinary Lay
RH	Right hand
S	Seale
SF	Seale Filler Wire
SW	Seale Warrington
SWL	Safe Working Load
TS	Triangular Strand
W	Warrington
WF	Warriflex
WLL	Working Load Limit

Some wire rope manufacturers may also include additional abbreviations into their rope codes to indicate the type of strand construction or the shape of the strand. Some manufacturers may also include a numerical description of how the wires are grouped to form the strand. An example is as follows:

6 (15 + 9 + FC) + FC
 6 x 24 + 7FC

This would indicate that the rope has 6 strands.

Each 24 wire strand is made up with:

- 15 wires forming the outer layer;
- 9 wires forming the inner layer; and
- A fibre core.

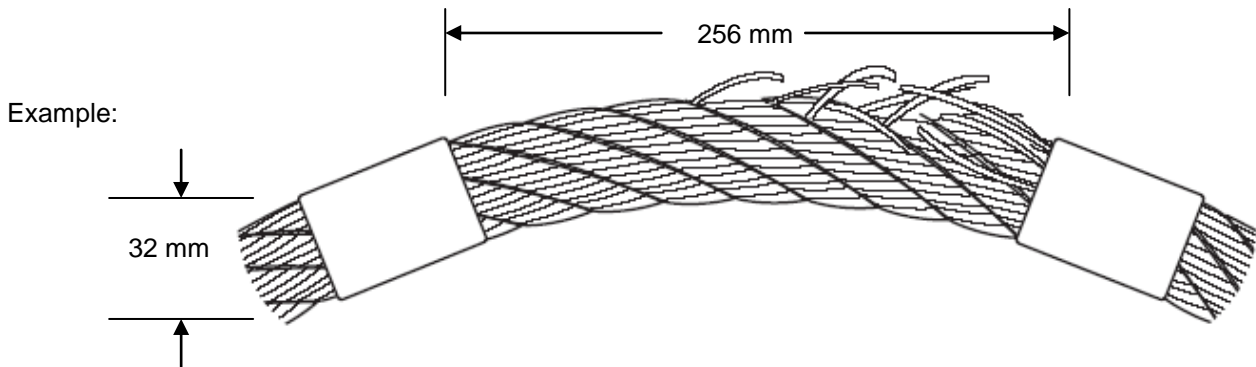
The six strands are laid around a fibre core. 7FC indicates the total number of fibre cores in the construction (one fibre core in each strand and one central fibre core).

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- + + **Attachment 4: Broken Wire “Rule of Thumb”**
- + Knowing the construction of the wire rope sling becomes important when it is necessary to inspect the rope for the damage or broken wires.
- + When wire ropes are inspected, a “rule of Thumb” calculation (field calculation) can be used to determine the maximum number of broken wires that a wire rope can have before it is taken out of service. This rule of thumb can be used if specific manufacturer’s information about the particular rope is unavailable.

The Rule of Thumb is:

Maximum Number of Broken Wires = 10% of the total number of wires in any section of the rope equal in length to 8 times the diameter for the rope.



Rope construction = 6 x 19 (i.e. 6 strands of 19 wires per strand)
 Rope diameter = 32 mm

Calculation:

<i>Total Number of Wires</i>	= 6 x 19
	= 114 wires in total
10% of Total Number of Wires	= 114 ÷ 10
	= 11.4 wires
	▶ Rounded down = 11 wires (maximum)
8 times the Rope Diameter	= 8 x 32
	= 256 mm

Therefore if more than 11 wires are broken in any part of the rope measuring 256 mm in length, the rope is to be considered unsafe to use, and taken out of service.

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Attachment 5: Audit Checklist

SCL Site: _____ **Date:** ____ / ____ / ____ **Conducted By:** _____ **Position:** _____
(Print First & Last Names)

C – Compliant NC – Non-Compliant NA – Not Applicable

Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
Risk Assessment				
Are lifting hazards being assessed and managed as per a work method statement for the relevant work activity; and/or by a dogger?				
Planning to undertake lifting activities				
Do only licensed doggers undertake: <ul style="list-style-type: none"> ▪ selection of lifting equipment; ▪ inspection of lifting equipment; ▪ placement of lifting equipment; and ▪ directing a crane/hoist operator in the movement of a load? 				
Are precautions taken to ensure that the type of slinging arrangement and angle created by the positioning of lifting equipment on a load does not decrease the capacity of the lifting equipment such that the load exceeds the SWL of the equipment?				
Is dunnage/sling protectors supplied/used where required?				
Is lifting equipment configured in such a way as to avoid slippage and to evenly balance the load?				
Is a larger sized chain or sling used to ensure lifting equipment is adequate if / when: <ul style="list-style-type: none"> ▪ the exact weight of the load is not known; ▪ there is a risk of a shock loading on the lifting components; ▪ conditions are abnormal or severe; and / or ▪ there is an increased risk to personnel? 				

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Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
+ + Damaged or malfunctioning lifting equipment tagged out and disposed of ASAP?				
+ 'Caution – Out of Service' tags are available for use?				
Specification/Identification				
+ + Is all SCL lifting equipment designed, tagged / marked in accordance with relevant Australian Standards as listed / detailed in this standard?				
Controls				
When making a chain sling, are all chains, hooks, links and couplers of the same grade, SWL, and in a good state of repair?				

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Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
+ + + Are there processes onsite to ensure that: + ▪ chains are regularly inspected for wear, nicks, gouges, stretch, localised bending and shearing? + ▪ all loads are to be within the SWL of the chain? + ▪ any chain in which the links are stretched, frozen or do not move freely is not used? + ▪ chains are not used if they are gouged or worn more than 10% of the diameter? ▪ chains are not twisted, kinked or knotted for shortening purposes? ▪ chains are not shortened using nuts and bolts? ▪ persons do not hammer a chain to straighten the links or to force into position? ▪ loads are not set onto chains, or vehicles / mobile plant driven over chains? ▪ chains are not dragged across the ground where they may be worn? ▪ any chains with a link that is cracked, or has been spot welded other than by the manufacturer of the chain are not used? ▪ Herc Alloy chains are not used when the temperature exceeds 200°C unless heat reduction charts are used? ▪ protective padding is used on chains around sharp corners?				

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Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
+ + + Are there processes onsite to ensure that: + ▪ careless uncoiling and handling of ropes is avoided? + ▪ ropes are not kinked? + ▪ ropes are not exposed to corrosive substances? + ▪ ropes are suitably oiled or greased to ensure sufficient lubrication? + ▪ ropes are fed or rolled out without slack and in a straight line from the reel to prevent kinking or disturbance of the lay? ▪ reeled ropes are mounted on a spindle and securely anchored? ▪ reels are effectively braked? ▪ rope is not thrown off turns with coil or reel flat on the ground? ▪ torque of new ropes is regularly released under control until the rope has settled?				

Corporate Standard

Lifting Equipment

HB# 560726

Amd Date 13/10/09

Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
+ + + Are there processes onsite to ensure that: + ▪ sheave blocks are periodically overhauled and lubricated? + ▪ sheave blocks are used in accordance with manufacturer specifications? + ▪ fit of rope in the grooves of the sheaves is examined to ensure the grooves are correct for the rope size? + ▪ safety latches are examined for deformation? ▪ nut or collar of shank is examined to ensure that it is securely fastened and free from visible defects? ▪ shank is examined to ensure it is not distorted and turns freely? ▪ side straps are examined for wear such as fractures, stretching, distortion or wastage? ▪ side / partition plates are examined for any signs of buckling or distortion? ▪ sheaves are examined for surface defects and wear or tear to the bush and axles? ▪ where provision is made for lubrication, sheave blocks are adequately lubricated ▪ sheaves are not painted in such a manner that free movement is impaired or lubrication points or grease holes are choked? ▪ sheaves are disposed of after exposure to temperatures exceeding 400°C?				

Corporate Standard

Lifting Equipment

HB# 560726

Amd Date 13/10/09

Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
+ + + Are there processes onsite to ensure that: + ▪ hooks are fitted with a safety catch? + ▪ hooks to be used in a chain sling have at least the same SWL as the chain? + ▪ crane hooks are able to rotate freely at all times? + ▪ if a chain hook opening is stretched more than 5% it is disposed of? ▪ no bent, distorted or stiff hooks are used? ▪ welding or repairs are not performed on damaged hooks? ▪ hooks do not to have any attachments welded to them?				
Are there processes onsite to ensure that: ▪ rings have at least the same SWL as the chain, hook and other parts of any sling used? ▪ if a ring is damaged or stretched more than 5%, it is disposed of? ▪ rings are not placed over a hook unless they can hang freely?				

Corporate Standard

Lifting Equipment

HB# 560726

Amd Date 13/10/09

Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
Are there processes onsite to ensure that: <ul style="list-style-type: none"> ▪ slings, if wet, are allowed to naturally dry? ▪ slings are protected from sharp edges during lifting? ▪ sling load charts are consulted for configurations not shown on tags? ▪ all relevant inspections are undertaken prior to use? ▪ slings that are not tagged are not used? ▪ slings are not dropped from heights? ▪ a sling is not used if there is any sign of cuts, snagging, heat or chemical damage, excessive wear, or damaged seams? ▪ knots are not tied in slings? ▪ slings are not used if crossed or twisted around load? ▪ slings are not exposed to excessive temperatures? ▪ abrasive or other damaging grit etc., is not allowed to penetrate the fibres of the sling? 				
Are there processes onsite to ensure that: <ul style="list-style-type: none"> ▪ shackles have at least the same SWL as the chain, hook and other parts of any sling used? ▪ shackles are not used unless the markings are legible? ▪ bolts and nuts are not used in place of the proper shackle pin? ▪ shackles permanently attached to lifting devices have their pins secured by seizing or mousing? ▪ any shackle that is bent, deformed, damaged or worn in the crown or pin by more than 10% is disposed of? ▪ applications where movement of the load or rope may possibly unscrew the pin are avoided? ▪ to prevent jamming, shackle pins are only tightened finger tight then released a quarter turn prior to use? ▪ only shackles that are large enough to accommodate large slings or multiple rings are used when lifting loads? 				

Corporate Standard

Lifting Equipment

HB# 560726

Amd Date 13/10/09

Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
Design calculations for spreader bars and lifting beams have been obtained from the manufacturer?				
Are there processes onsite to ensure that spreader bars and lifting beams are: <ul style="list-style-type: none"> ▪ engineer designed? ▪ operated in accordance with manufacturer's instructions? ▪ designed so that the load remains stable? 				
Site Specific Management				
Is all lifting equipment stored in a dedicated clean storage area, where equipment is protected from damage at all times and off the ground?				
Is all SCL lifting equipment maintained by a licenced dogger/competent person in accordance with the manufacturer's recommendations and relevant Australian Standards?				
Are all synthetic slings inspected by a licenced dogger at intervals not exceeding 3 months?				
Are documented annual inspections and 'Fitness for Use' reviews undertaken on all SCL owned lifting equipment by a competent person (i.e. Lifting Equipment Specialist)?				
Are the details of 3 monthly and annual inspections recorded in the site's Lifting Equipment Register?				
Does the annual inspection of synthetic slings include a destruction test as detailed in this standard?				
Are slings that are found to be below standard removed from service and tagged out with a 'Caution Out of Service' tag?				
Are tags or suitable identification markers fitted to all lifting equipment by Lifting Equipment Specialist, identifying the item's currency in respect to fitness for use?				

Corporate Standard

Lifting Equipment

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Item	C-NC-NA	Findings / Action Required	Responsible Person	Completed (Insert Date & Initials)
Is an up-to-date Lifting Equipment Register maintained which includes the identification, inspection and maintenance details / records for all lifting equipment components?				
Training and Competency				
Do all persons required to undertake dogging work hold current dogger's certification (or the equivalent for the relevant state or territory)? (unless meeting the exception detailed in this standard)				
Are all dogger trainees being supervised and managed in accordance with the relevant WH&S Regulations?				
Is training as per HB#794283 Lifting Equipment Awareness Training Rationale provided?				



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Corporate Standard Lifting Equipment

HB# 560726

Amd Date 13/10/09

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Other / Further Details:

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Signature of Person Conducting Inspection:

Copies Provided to:

(Print First & Last Names)