Surrningutrustning

Fig.2.01 *6 x 12 (12/Fibre) FC*

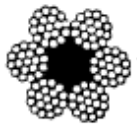


Fig.2.02 [redacted] *FC*

Fig.2.03 *6 x 24 (15/9/Fibre) FC*

16/6/19

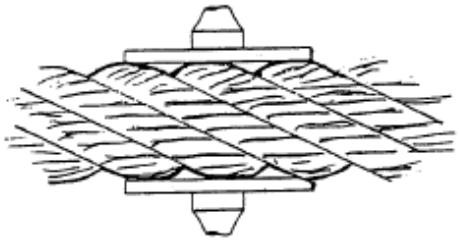
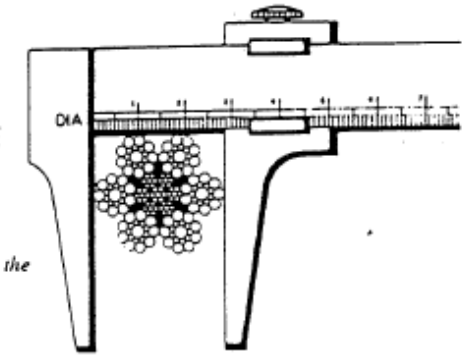
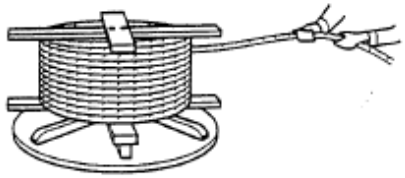


Fig.2.04 *Correct method by which to measure the diameter of wire rope*

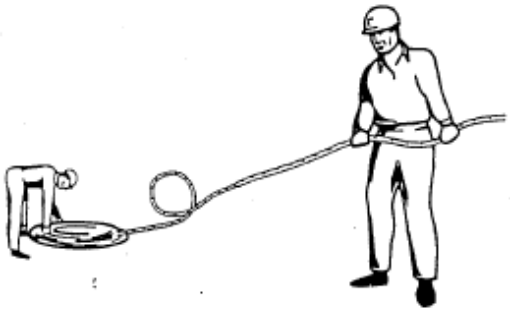




Uncoiling

Correct method

Fig.2.05



Unreeling

Incorrect method

Fig.2.06

Certificate

Manufacturer Nautimax bv
Customer MV. Delfzijl

Specification of Item	Number PCS	M.S.L KN	Test Load KN	B.L. KN
Nautimax Web System	30	100	125	200
Containing:				
Winch hot dip Galvanized 65/200	30	100	125	200
Web polyester 60/230, L=10 m,	30	100	125	300
D-ring type T/200	30	100	125	200
Eye hook painted	60	100	125	200
Nautimax Trailer Ratchet system L=4.5 m	160	60	75	120
Ratchet 50 mm	160	60	75	120
Web double 9.0 m	160	60	75	180
Elephant foot 50 mm	160	75	90	150
Web hook 50 mm	160	75	90	150
Tools:				
Tension Ratchet				
Max Car lash	3000	7.5	10.0	15.0
Containing:				
25 mm O.C. Buckle	3000	7.5	10.0	15.0
25/20 web 3.0 m	3000	7.5	10.0	21.5
Flat hooks 25/whitre EP	6000	7.5	10.0	15.0

* The tolerance in the Min. Breaking Load can be max -5 % of Breaking load stated.
* M.S.L. means 'Maximum Securing Load' Safety factors: Steel parts (2:1) , Web parts (3:1).
* This type approval certificate is valid four (4) years.

Notes:
We hereby certify that the Nautimax web system with the above specification, satisfies the requirements of the I.S.M. cargo securing manuals and is according IMO specifications.

This is a sample certificate, sizes can differ per ship as these systems are tailor made.

Issued date 10 November 1997

back

Fig.3.01

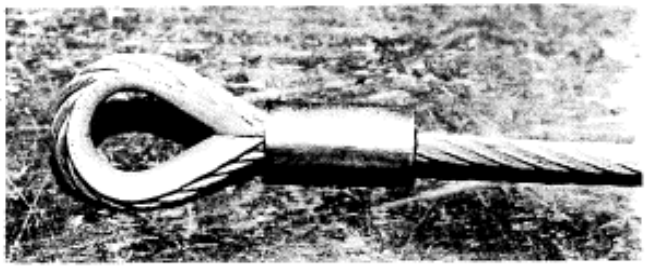


Fig.3.02

Fig.3.03

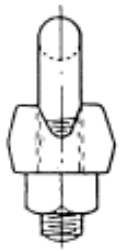
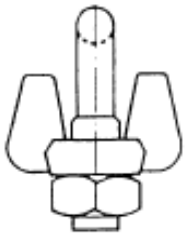


Fig.3.04

Fig.3.05

Fig.3.06



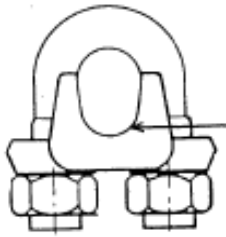


Fig.3.07

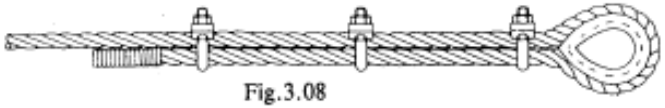
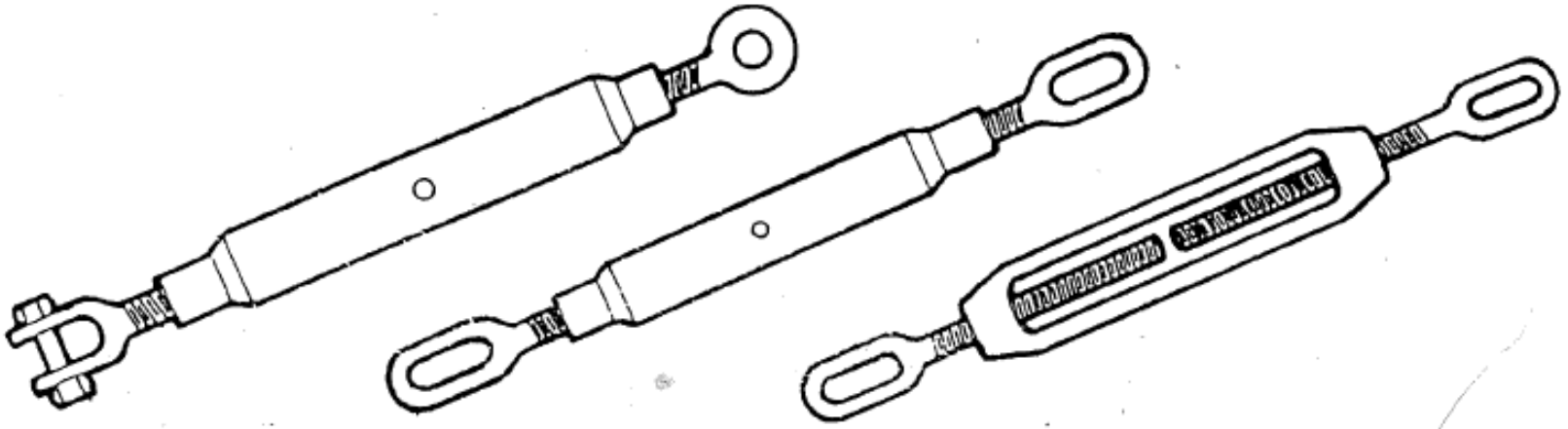


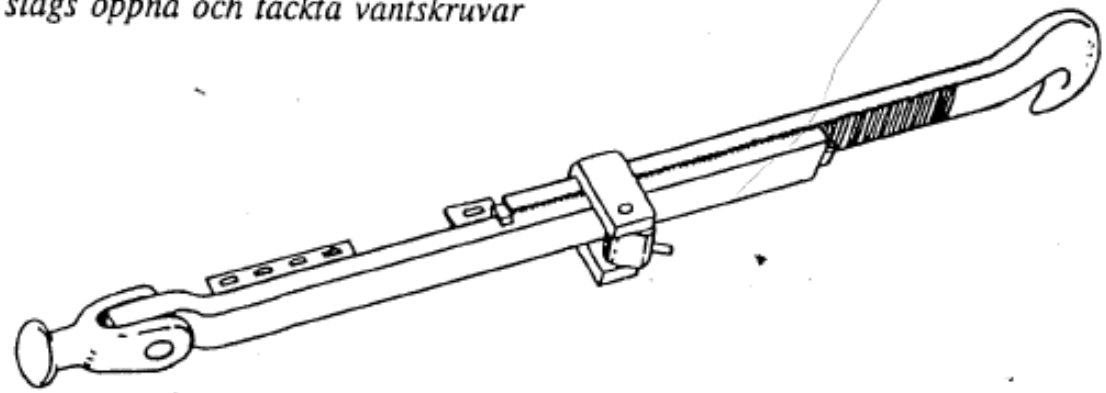
Fig.3.08

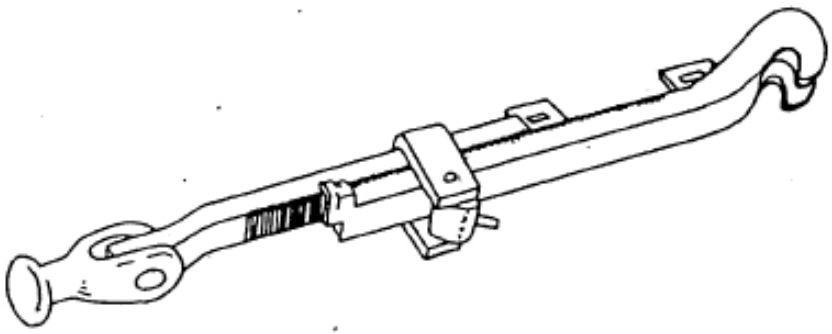
Fig.3.09

Olika surrningsutrustningar



Olika slags öppna och täckta vantskruvar





Before cutting the wire, whip or tape on both sides of the cut point.

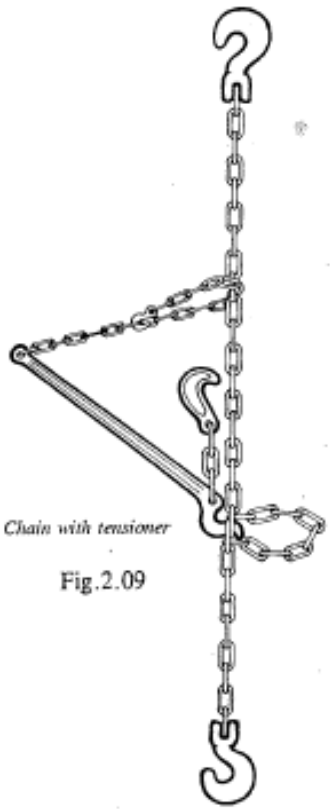
Cut cleanly through the wire

Taping at cut ends holds the strands together

Fig.2.07

Long link chain

Fig.2.08 *Short link chain*



Chain with tensioner

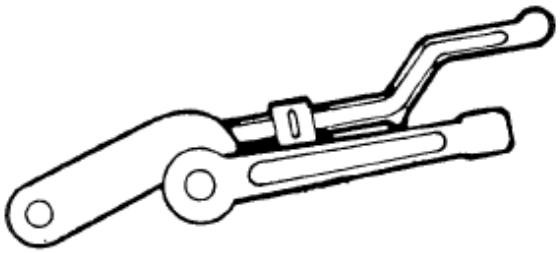
Fig.2.09

Fig.2.10

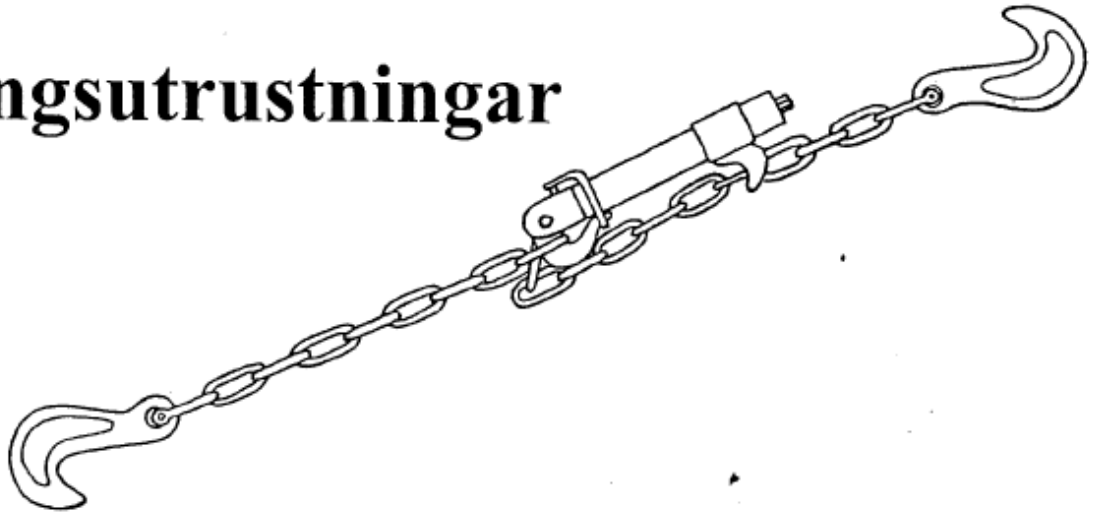
Chain with ring lug one end, oval link the other

(SOURCE: Coubro & Scruton Ltd.)

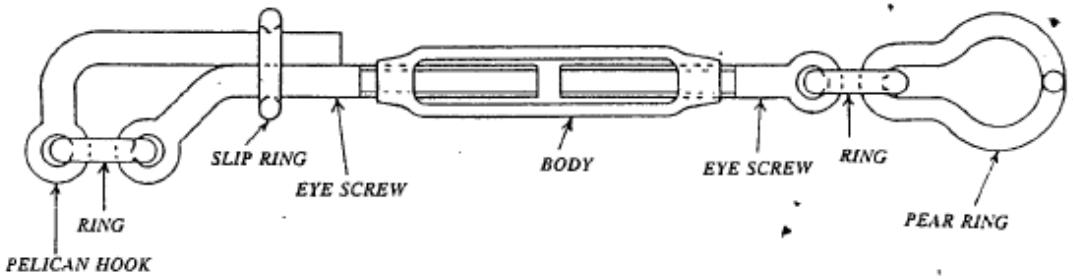
Olika surrningsutrustningar



Spännanordning typ quick release



Spännanordning typ "speed lash"



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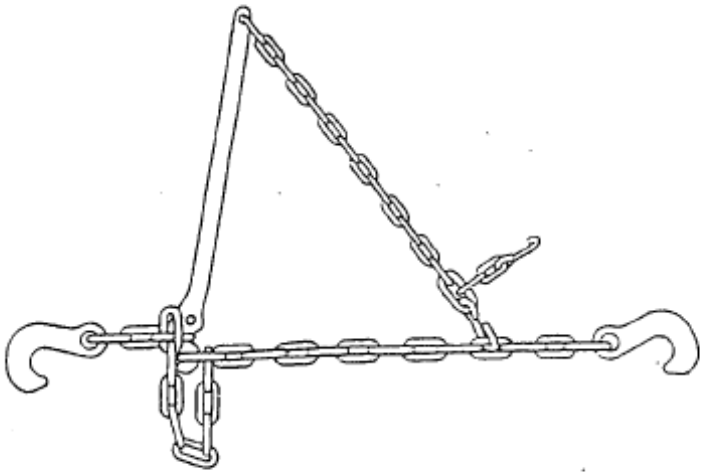
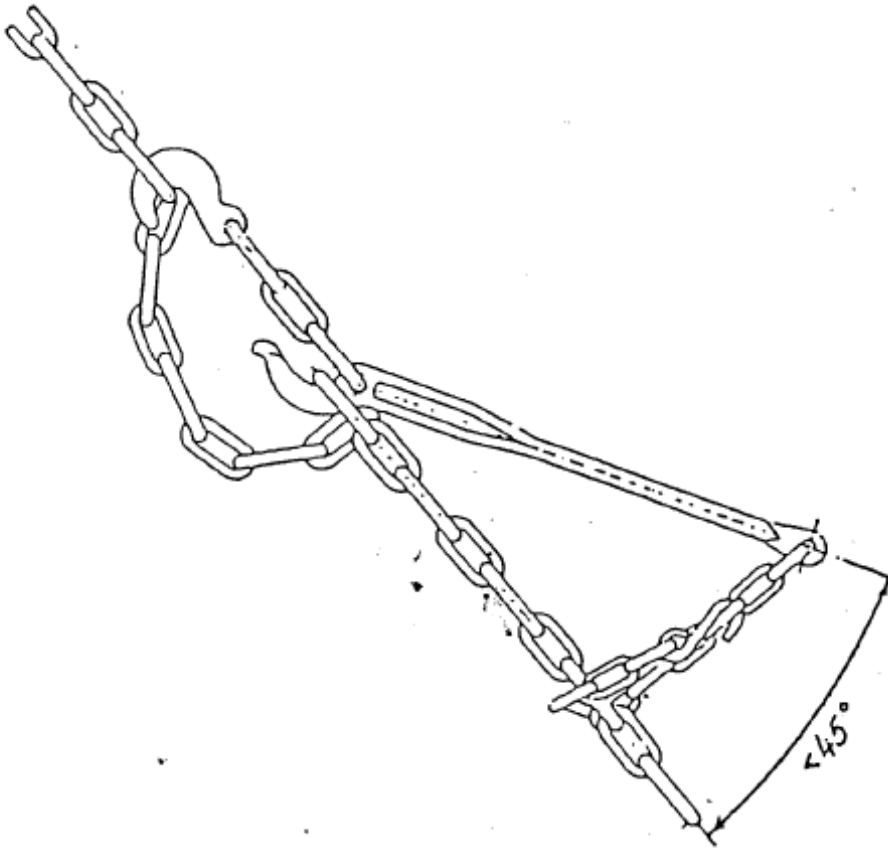
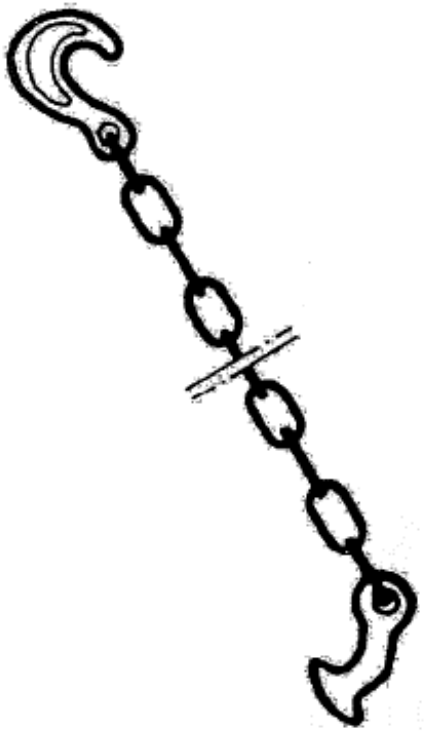


Spännanordning för kättning, en s k björn



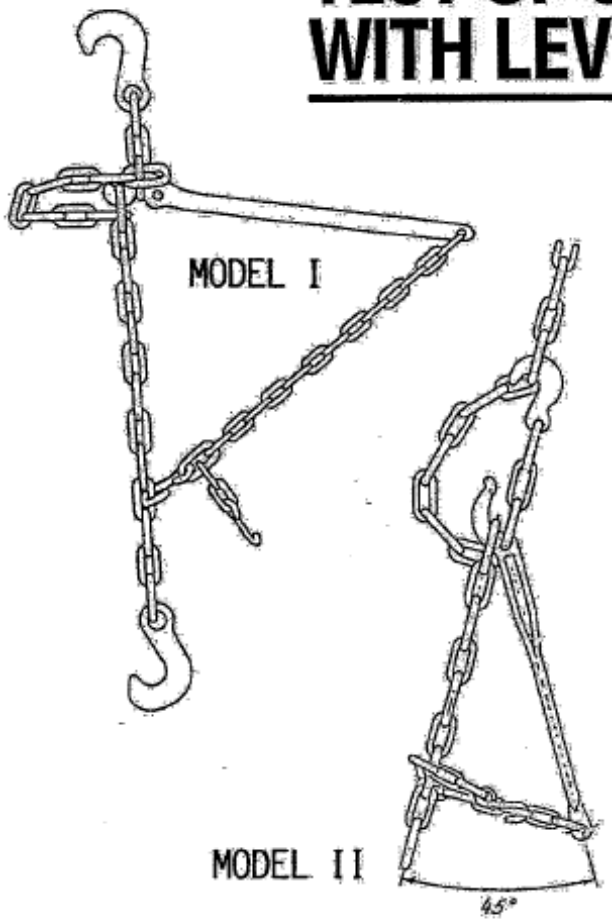
Spännbjörn med restriktion och låg kvalitet

TEST OF LASHING CHAINS



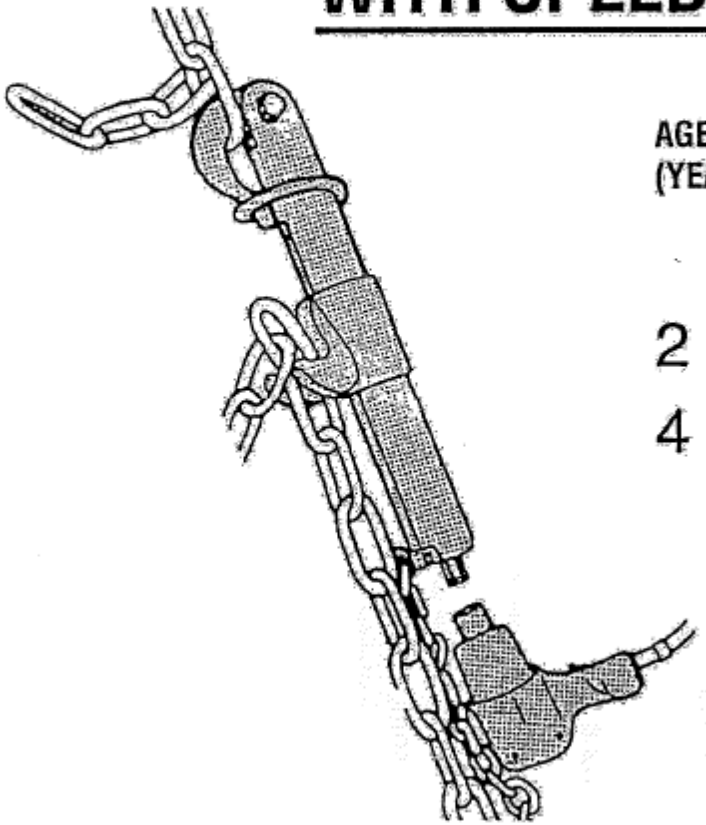
AGE (YEARS)	BREAKING STRENGTH AT TEST (TON)	SPECIFIED BREAKING STRENGTH WHEN NEW (TON)
4	6.0 (one link slightly damaged)	15
4	9.0 (welding fault)	15
4	15.0	15
4	20.0	20
4	21.0	20
4	20.0	20

TEST OF CHAIN LASHINGS WITH LEVER TENSIONER

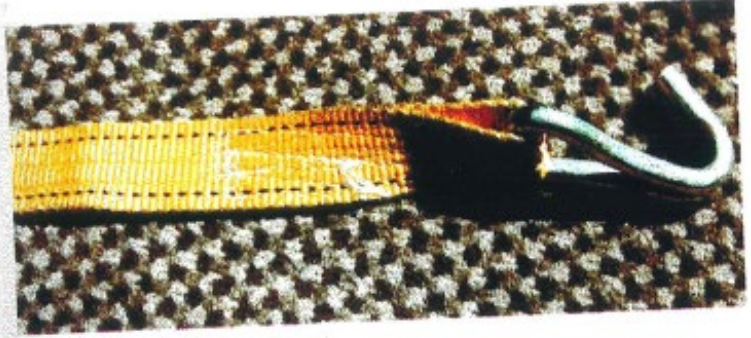


AGE (YEARS	MODEL	BREAKING STRENGTH AT TEST (TON)	SPECIFIED BREAKING STRENGTH WHEN NEW (TON)
4	I	15.0	15
4	II	4.0	15
4	II	4.5	20
4	II	6.0	20
4	II	4.7	20

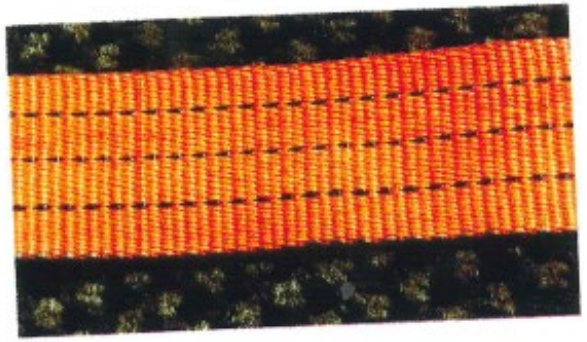
TEST OF CHAIN LASHINGS WITH SPEED LASH TENSIONER



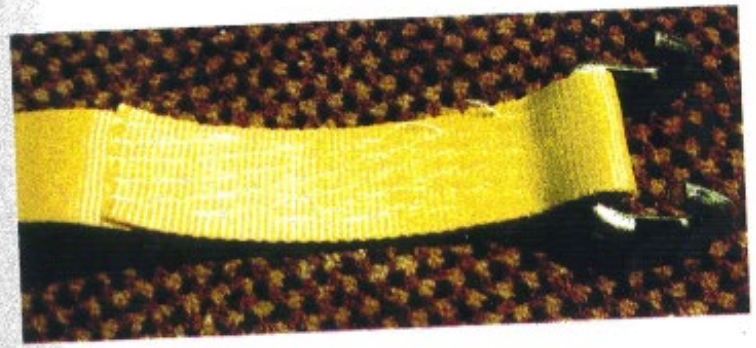
AGE (YEARS)	BREAKING STRENGTH AT TEST (TON)	SPECIFIED BREAKING STRENGTH WHEN NEW (TON)
2	15.1	15
4	14.9	15



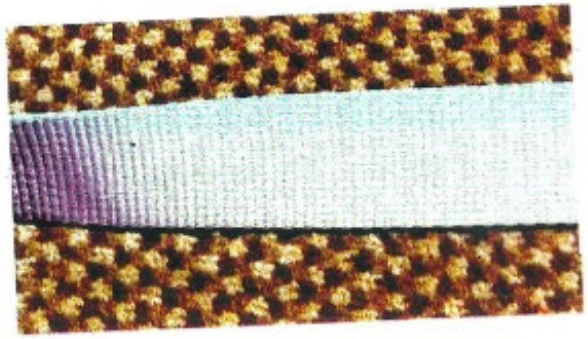
2-tonne NBL colour-coded webbing



3-tonne NBL colour-coded webbing



Yellow, non-coded, webbing (probably 1.6 tonne NBL)



Blue, non-coded, webbing (probably 4 tonne NBL)

Fig.2.11

Webbing lashing with hand ratchet tensioner; chain attachments each end

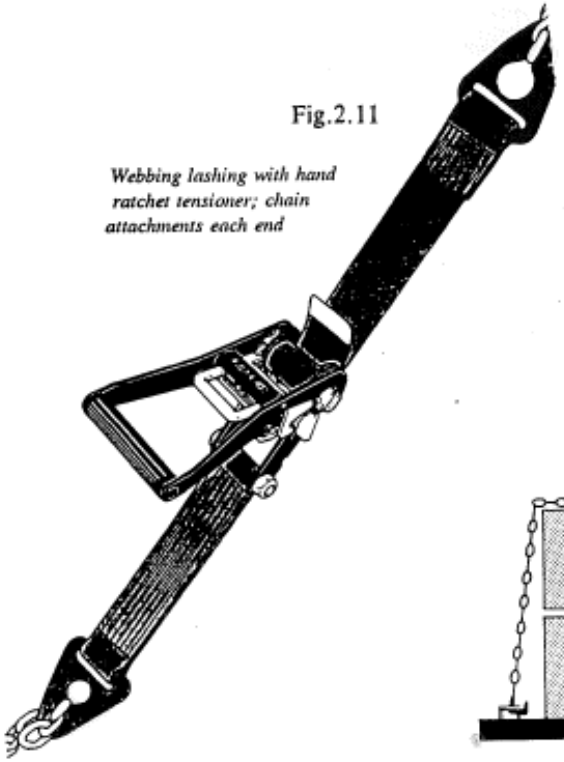


Fig.2.12 *One method of using webbing and chain lashings*

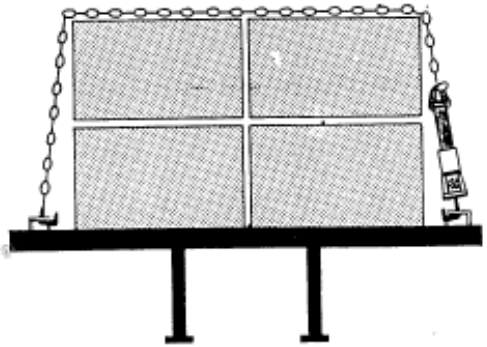
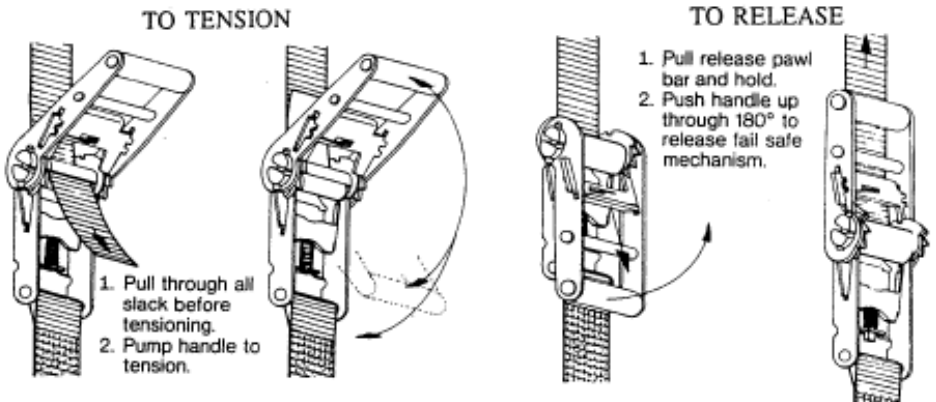
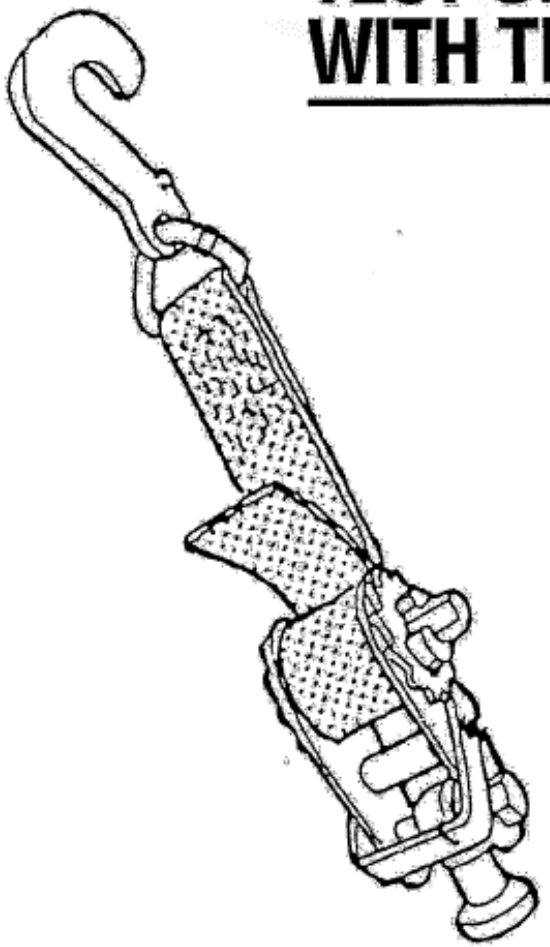


Fig.2.13



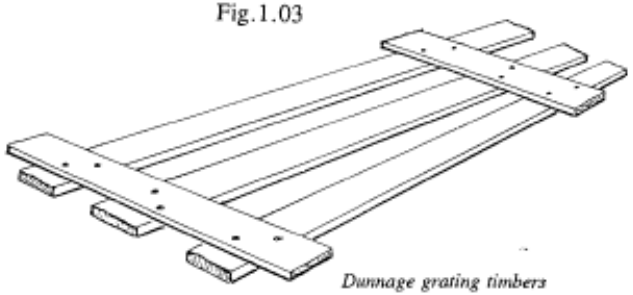
TEST OF WEB LASHINGS WITH TENSIONER



AGE (MONTHS)	BREAKING STRENGTH AT TEST (TON)	SPECIFIED BREAKING STRENGTH WHEN NEW (TON)
1	9.7 (10.0)*	12 (17)*
4	8.4	12
6	6.6	12
8	6.4 (10.8)*	12 (17)*
11	7.5	12

* WEB ALONE

Fig.1.03



Dunnage grating timbers nailed together

Single-board dunnage

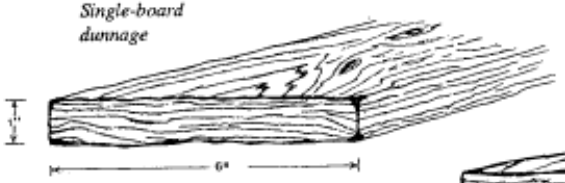
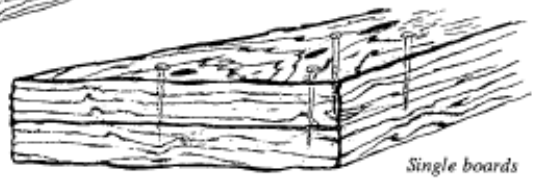


Fig.1.04

Fig.1.05



Single boards nailed together

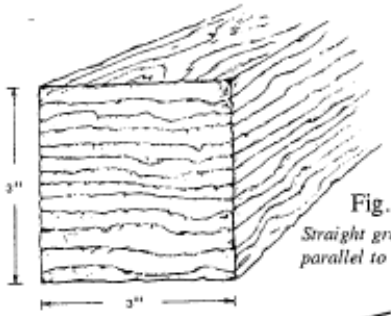


Fig.1.06

Straight grain parallel to deck

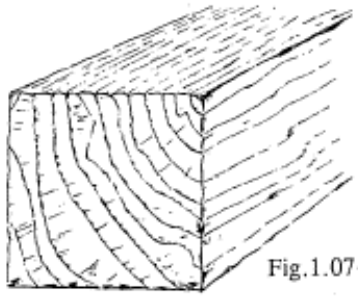


Fig.1.07

Curved grain liable to split

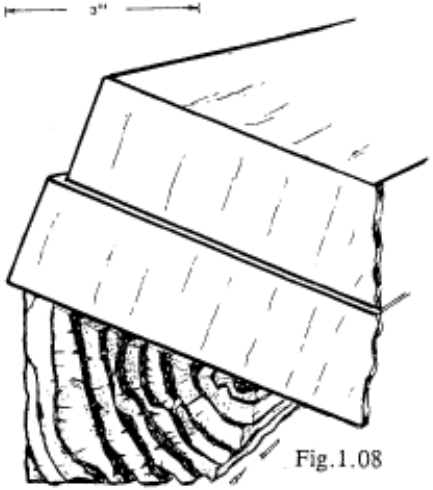
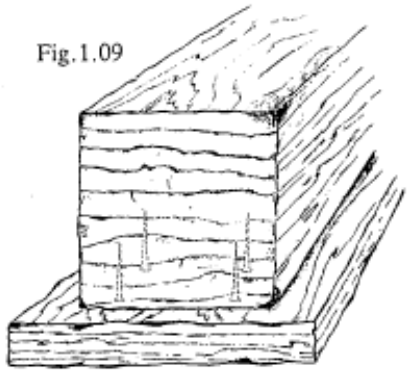


Fig.1.08

Collapse of curved grain timber under load

Fig.1.09



Dunnage timbers nailed to hold the grain