CCR. 12.0 - MOORING WINCHES - BREAK RENDERING TEST

Mooring Equipment Safe Working Load

Winch No	Winch Location	Min SWL-Mooring Equipments	Break Rendering Load Of Winches	60% MBL	80% MBL	Max MBL Of Mooring Ropes
Winch No 01	Fwd Winch Port Side	132	79	79	106	132
Winch No 02	Fwd Winch Stbd Side	132	79	79	106	132
Winch No 03				0	0	0
Winch No 04				0	0	0
Winch No 05				0	0	0
Winch No 06				0	0	0
Winch No 07				0	0	0
Winch No 08				0	0	0
Winch No 09				0	0	0
Winch No 10				0	0	0
Winch No 11				0	0	0
Winch No 12				0	0	0

1 MBL of Mooring Ropes Maintained Onboard To be **SAME OR LESS Than The MIN SWL** Of Mooring Equipments.
   Mooring Equipments OnBoard Include Mooring Winch, Bollards, Fair leads, Mooring Winches Etc.

2 Mooring Winches To Be Tested And Marked With A Brake Rendering Load (BRL)
   BRL Should Be Between 60% and 80% of MBL Of Mooring Ropes Used Onboard.

3 Master's To Enter Ship Specific Data In YELLOW Columns And Check BRL Of Winches Displayed In 60% and 80%

Notes On Selection Of Max MBL Of Mooring Roopes : -

As Long As the MBL Of Ropes Is Same As MIN SWL OF MORING EQUIPMENT
AND ACTUAL PRESENT BRL OF WINCHES IS BETWEEN 60% AND 80% OF MBL AS CALCULATED IN COLUMNS.

If Vessel Does Not Comply With Above Master To Immediately Inform QHSE.

To be completed annually and forwarded by Email & filed as hard copy on board in CCR 12.0 folder
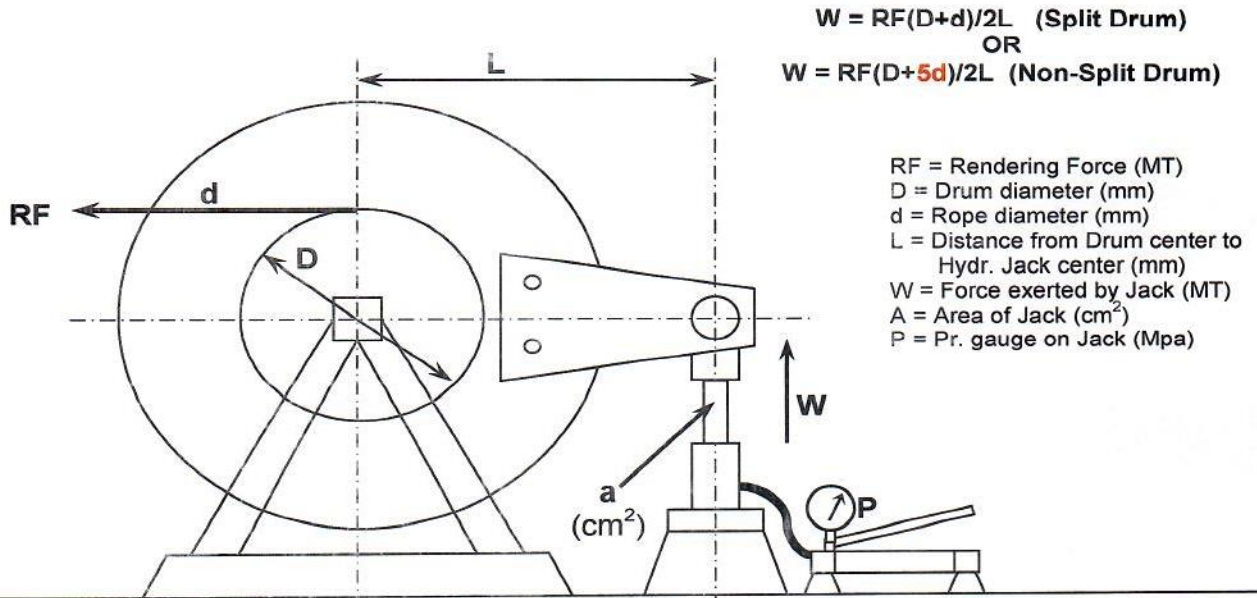
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Made by:	QHSE
Date:	01/10/2019
Made by:	QHSE
Approved by : GM
Rev No: 01

M. 2.50 - MOORING WINCHES BRAKE HOLDING TEST

Vessel Name: M.T. BAHAMA BLUE

Date: 30-Dec-20

$$W = RF(D+d)/2L \quad \text{(Split Drum)}$$
$$\text{OR}$$
$$W = RF(D+5d)/2L \quad \text{(Non-Split Drum)}$$

RF = Rendering Force (MT)
D = Drum diameter (mm)
d = Rope diameter (mm)
L = Distance from Drum center to Hydr. Jack center (mm)
W = Force exerted by Jack (MT)
A = Area of Jack (cm^2)
P = Pr. gauge on Jack (Mpa)

Winch No.	RF (MT) Rendering Force	D (mm) Winch Drum Dia	d (mm) Rope dia	L (mm)	a (cm2) Area of Hydr. Jack	Drum Type (S / N) .Split or .Non-Split	W * (tonnes)	P (kgf / cm2) P = W*1000/a	P(actual) (kgf / cm2) Actual values at which Brakes Rendered	RF(actual) (MT)
1	8	400	12	440	26.56	S	3.7455	141.02	140	8
2	8	400	12	440	26.56	S	3.7455	141.02	140	8
3										
4										
5										
6										
7										
8										
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10										
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12										
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17										
18										
19										
20										

REMARKS: Actual Kgf/cm2 will be the last value after adjustment of Brake Screw and it will be very close to the value of "P" in column 9.

Corresponding RF will be obtained by reverse Calculation using value of actual kgf/cm2 from last column.

Pressure convertion: 1MPa = 10Bar = 10.1971Kg/cm2 = 9.869232Atm = 145.04psi

CAPT. LORETO CARACENA S
MASTER

NICKO MUNAR
CHIEF ENGINEER

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CHIEF OFFICER