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# Updates on Requirements Relating to **Authorised Examiner's Practices**



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Deputy Director
OSH Specialists Department
18 Nov 2016
Authorised Examiners Forum 2016



### **DUTY OF AUTHORISED EXAMINERS**

- No statutory equipment shall be used in a workplace unless an authorised examiner has
  - tested and (thoroughly)examined the equipment; and
  - issued and signed a certificate of test and examination
- 2. It shall be the duty of an authorised examiner to
  - issue and sign a certificate, in a form determined by the Commissioner, of the result of the examination
  - Provide the certificate to the occupier of the workplace / owner
  - inform the Commissioner
    - as soon as is reasonably practicable, if the examination shows that the equipment cannot continue to be used safely unless repairs are made; or
    - in any other case, within 28 days of the completion of the examination, of the results of the examination in a manner acceptable to the Commissioner
  - exercise all due diligence in making any certification / report or in conducting any test or examination of statutory equipment



## **TESTING AND EXAMINATION OF STATUTORY EQUIPMENT**

3. AEs are to physically carry out test and examination and the appointment of a proxy / another person to conduct inspection on behalf is **not** allowed





Date: 21 June 2013

Authorised Examiners (Pressure Vessels and Lifting Equipment), and Other Interested Parties

CIRCULAR ON PROHIBITION OF USE OF PROXIES TO CONDUCT TESTS & EXAMINATIONS OF EQUIPMENT REQUIRED BY WORKPLACE SAFETY AND HEALTH LEGISLATION TO BE CERTIFIED BY AN AUTHORISED EXAMINER

The Ministry of Manpower (MOM) has recently received feedback from the industry that a few Authorised Examiners have engaged provies to conduct prescribed tests and examinations on their behalf, during the certifications of equipment required by Workplace Safety and Health (WSH) legislation to be certified by an Authorised Examiner. These include lifting equipment and some types of pressure vessels.

- 2. This circular serves as a reminder to all Authorised Examiners that using proxies to conduct the prescribed tests and examinations of all such equipment for the certification of the equipment is strictly prohibited. All such equipment is to be thoroughly examined by the Authorised Examiner hinself. The Ministry will not hesitate to take stringent enforcement action against Authorised Examiners who use proxies for such equipment, which can include initiating suspension or cancellation of the approval given to them as Authorised Examiners by MOM. They may also be prosecuted for offences under the WSH Act and its regulations. An offence under Section 53(b) carries a punishment of a fine not exceeding \$5000, or imprisonment for a term not exceeding 6 months or to both.
- 3. In addition, Authorised Examiners who fall to exercise all due diligence in making any certification or conducting any test of examination of such equipment may also be prosecuted under the WSH (General Provisions) Regulations, where they shall be liable on conviction to a fine not exceeding \$20,000 or to imprisonment for a term not exceeding 2 years or to both.
- 4. The above requirement is for your immediate compliance.



FOR MORE SAFETY AND HEALTH
MINISTRY OF MANPOWER

Occupational Safety and Health Division 1590 Bendemoer Foad R05-02, Singapore 335546

1 (95) 6438 5122 csimile (95) 6535 6726 Using proxies to conduct the prescribed tests and examination is strictly prohibited.

1<sup>st</sup> reminder in this June 2013 circular.

2<sup>nd</sup> reminder in recent Floor crane circular issued on June 2016.



## **TESTING AND EXAMINATION OF STATUTORY EQUIPMENT**

- 4. During the conduct of testing and examination of any statutory equipment, AEs must exercise due diligence and **not accept** an inadequate or unsafe design of the equipment, or wrong classification of equipment with reason that it has been previously issued with a certificate of test and examination
- 5. AEs are reminded thorough examination of lifting equipment (LE) lifting machines, lifting appliance and lifting gear, include checking that the they are functioning safely and in good working condition, and that all safety devices are working properly (if applicable). Always refer to manual if not familiar with equipment
- 6. AEs are **NOT** to conduct test and examination of equipment outside the scope approved by the Commissioner



### **TESTING AND EXAMINATION OF STATUTORY EQUIPMENT**

7. AE shall not issue certificate of test and examination for statutory equipment without already completed conducting testing and examination of the equipment

I certify that on <u>DD/MM/YYYY</u> the lifting equipment described in this certificate was examined thoroughly by me, as far as its construction permits, and this is a true report of my examinations.

I further certify that the lifting equipment complies in all respects with the requirements pertaining to lifting equipment as stipulated in the Workplace Safety and Health (General Provisions) Regulations, and all other regulations made thereunder and is safe for use.

Expiry Date of Certification	Date of Print of Certificate	Authorised Examiner's Name	Signature of Authorised Examiner

Lifting Equipment means Lifting Gear, Lifting Appliance, Lifting Machine, Lift and Holst as defined under the Workplace Safety and Health (General Provisions) Regulations.

Distinctive Number refers to the identification Number/Serial Number assigned to the equipment by the manufacturer.



### **ISSUING CERTIFICATE OF TEST AND EXAMINATION**

### Use of MOM's computer system to issue certificate of examination

- 8. With exception to the certificate of examination for lifting gears, the examination details of the statutory equipment (LE and PV) shall be entered in the Ministry of Manpower's (MOM) iOSH system for proper documentation of the examination, automated generation of the certificates and as a means to inform the Commissioner of the completed examination. This is required to be done within 28 days of the completed examination
- 9. Proper documentation shall be established by the AE to ensure that records of the examination and the certificates are available and properly kept for at least 3 years



### **ISSUING CERTIFICATE OF TEST AND EXAMINATION**

10. The automated generation of certificate of examination for lifting gears is not available via MOM's iOSH system and shall be generated individually by the respective AE using the format shown.

WORKPLACE SAFE SERVICE	TRY OF MANPOWER AGE SAFETY AND H ETY AND HEALTH (R SI FEES AND FORM	EALTH / EGISTR/ G) REQU	CT 2006 KTION AND OTHER LATIONS	UEN	ogretration No. : of Owner. : place No. :		
	F TEST/THOROUGH OF LIFTING EQUIPM						
Owner of Lifting Equipment			Factory Occupier and Location of Lifting Equipment				
						- 7	
Particulars of Lifting Eq.	apment.						
Type and Description of Lifting Equipment				0.0	assification Code :	-	
Brand Name	-		Districtive	No. **	38		
country of origin	1		Date of Ma	nutocture			
Source of Power			First Regio	tration Dat	e :		
Max. Safe Working Load	1 -		Max. Boon	Length/3	pan :		
Owners' Reference/Vehicle Registration No.			Length of a Jib Externa	ny on	76		
Particulars of Last Load	Test.		10073510			-	
Date of Load Yest :			Max Test Lo	30 1	20 A CO 1	72.00	
	(1)	(2)	(3)	(4)	(5)	(6)	
Padius (m):						700	
Test Load (kg) :							
Safe Working Load (kg)	6						
Comments/Observation							
Contracta/Coservation	-						
i centry that on 2446422 conditions permits, an I further centry that the supulation in the Womps and is 63% for use.	one the inting equipment of the is-a true report. Iffing equipment con-	of my exa rplies in : (Genera	intrations. N respects with the n Provisions) Regulati	equirement oris, and a	te pertaining to lift i other regulations	ng equipment as made thereunder	
i centry that on 24/96/22 sonotruction permits, an I further centry that the stausance in the Workson.	ore the rifing equipment of the is a true report.  Iffing equipment conce darkly one received  Date or Frant of Certificate  Certificate	of my ext nplies in : s (Cenera Aut	ministrone, all respects with the n in Provisione; Regulation or received Examiner's Na	me	is pertaining to its other regulations Signature of Author	ing equipment as inductive under orbaid Examiner	



## No Modification to Prescribed Form Allowed

**11. You are not allowed to make** any modifications to the form set. Some examples of unauthorised modifications are addition of terms and conditions, removal of fields, etc.

I certify that on 22/09/2015 the lifting equipment, described in this certificate was examined thoroughly by me, as far as its construction permits, and this is a true report of my examinations.

I further certify that the lifting equipment complies in all respects with the requirements pertaining to lifting equipment as stipulated in the Workplace Safety and Health (General Provisions) Regulations, and all other regulations made thereunder and is safe for use.

Expiry Date of Certificate	Date of Print of Certificate	Authorised Examiner's Name	Signature of Authorised Examiner
			2.6H P. S.

<sup>\*</sup>Lifting Equipment means Lifting Gear, Lifting Appliance, Lifting Machine, Lift and Hoist as defined under the Workplace Safety and Health (General Provisions) Regulations.

This Certificate is issued subject to the terms and conditions as below:

- This report is based on the test(s) and conditions on the day of testing. The Owner is responsible for safe maintenance of equipment.
- The Authorised Examiner had exercised due diligence in the conduct of test(s) and in no circumstances shall the Authorised Examiner be held liable for consequential damage of equipment after the test(s).
- The Owner is responsible to ensure the integrity of the supporting structure and that the design of equipment are safe.
- THIS CERTIFICATE IS VOID IF MORE THAN 1 LIFTING EQUIPMENT IS TAGGED WITH THE SAME LE REGISTRATION NO.

<sup>\*\*</sup>Distinctive Number refers to Identification Number/ Serial Number as assigned to the equipment by the manufacturer.



### **ISSUING CERTIFICATE OF TEST AND EXAMINATION**

- 12. AEs shall avoid using the following prefix, i.e. LL, LH, LA, LM and LP for lifting gear to avoid confusion with the iOSH assigned prefix for lift, hoist lifting appliance, lifting machines and lifting platforms.
  - As far as possible, prefix for lifting gear should start with LG for easy identification.

### **EQUIPMENT THAT CANNOT CONTINUE TO BE USED SAFELY**

- 13. Inform the Commissioner as soon as is reasonably practicable, by logging into iOSH system and
  - a) For LE set the SWL to 1 Kg and provide information in comment box
  - b) For PV set SWP to 1 Kn/SqM and provide information in comment box
  - Set next examination date 1 day after examination date
  - Inform the owner / occupier that the equipment shall not be used until repairs are made and inspected to be safe by an AE

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### FORM B

### MINISTRY OF MANPOWER, SINGAPORE

WORKPLACE SAFETY AND HEALTH ACT 2006
WORKPLACE SAFETY AND HEALTH (REGISTRATION AND OTHER
SERVICES FEES AND FORMS) REGULATIONS

LE Registration No.	:	
UEN of Owner.	:	
Workplace No.	:	

## CERTIFICATE OF TEST/THOROUGH VISUAL EXAMINATION OF LIFTING EQUIPMENT (LE)\*

Owner of Lifting Equipmen	t		Factory	Occupier and Local	tion of Lif	ting Equipme	ent
			•				-
Particulars of Lifting Equip	ment						
Type and Description of Lifting Equipment	304 Lifti	ng Appliance -	Trolleys w	rith pulley	Classific	ation Code :	304
Brand Name	:			Distinctive No. **	:		
Country of Origin	: UNITED	KINGDOM		Date of Manufactu	ire :	1980	
Source of Power	: Manual	Operated		First Registration	Date :	25/04/1985	5
Max. Safe Working Load	: 1 kg			Max. Boom Lengt	h/Span		
Owners' Reference/Vehicle Registration No.	-			Length of Fly Jib/Extension		:	
Particulars of Last Load Te	est						
Date of Load Test : 11	/11/2008			Max Test Load :	6250 k	g	
	(1)	(2)	(3)	(4)		(5)	(6)
Radius (m) :							
Test Load (kg):							
Safe Working Load (kg):							
0							
Comments/Observations	ala fationi				_		
Trolley found with multi Radiography tests have			ach the cr	ritical size and len	gth.		

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### FORM A

WORKPLACE SAFETY AND HEALTH ACT 2006 THE WORKPLACE SAFETY AND HEALTH (REGISTRATION AND OTHER SERVICES-FEES AND FORMS) REGULATIONS

### REPORT OF EXAMINATION OF Air Receiver

NAME OF OWNER WORKPLACE NO.

POSTAL ADDRESS

LOCATION

NEXT INSPECTION DATE : 03/10/2017

1.0 kN/sq.m.

Registration No.

Safe Working Pressure

### PARTICULARS OF VESSEL

BRAND NAME YEAR MANUFACTURED 2009

: SINGAPORE COUNTRY OF MFG DATE REGISTERED DISTINCTIVE NO. MOBILITY Stationary

: Receiver TYPE OF VESSEL HEATING SURFACE (sq.m) POSITION : Vertical TEST PRESSURE (kN/sq.m) 1430.0

MDMT (°C) : -10.00 HEAT SOURCE

DESIGN : 93 **DESIGN CODE** ASME SECT 8 TEMPERATURE (°C)

### DESCRIPTION

### TANK/VESSEL

SHAPE SIDE PRESSURE ACTS ON THICKNESS(mm) MATERIAL HEAD1 : Ellipsoidal Concave 9.5 A516-70 HEAD2 : Ellipsoidal Concave 9.5 A516-70 SHELL 9.5 A516-70 DIA1/WIDTH(mm) : 1219 DIA2/WIDTH(mm) HEIGHT/LENGTH(mm) : 2438

PRESSURE TEST DATE : THICKNESS TEST DATE :

#### DESCRIPTION OF TEST PERFORMED TEST DATES

04/10/2015 Visual Examination Running Test 05/10/2015 Basic Visit 05/10/2015

### OBSERVATIONS

Pitting corrosion found on the shell of the vessel Thickness measured to be less than the design nominal thickness

CONDITIONS



### **ENSURE ALL FIELDS IN THE CERTIFICATE SHALL BE ENTERED ACCURATELY**

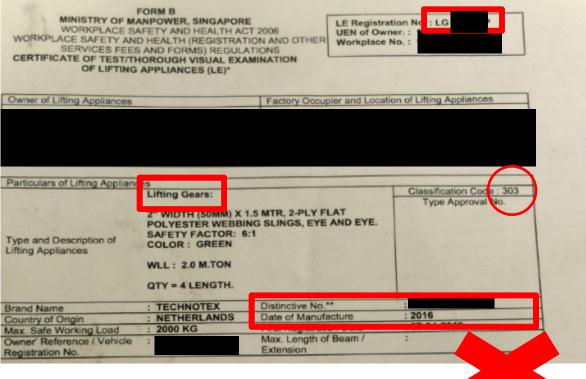
- 14. AEs are to ensure that the information regarding the equipment and the examination conducted are entered accurately in the certificate of examination.
- 15. This will include ensuring that all fields in the certificate such as the **owner's unique entity number (UEN), equipment's brand name, distinctive number, country of origin, date of manufacture, and maximum safe working load,** is filled in accurately.
- 16. Indicating any of these fields as 'unknown' is not acceptable. For lifting equipment, including lifting gears, which are assembled from parts of various brands and from various countries, the company which carries out the assembly of the equipment will assume the role as the manufacturer and the country where it is assembled will be the country of origin.
- 17. AE shall not test and examine a lifting equipment which includes all hoists, lifts, lifting gears, lifting appliances and lifting machines and certify it safe for use if any of the above fields is unknown. This will help us ensure that we are able to identify the equipment and determine its source and trace the responsibility of the manufacturer stipulated under the WSHA.



## ENSURE ACCURATE INFORMATION ON CERTIFICATE

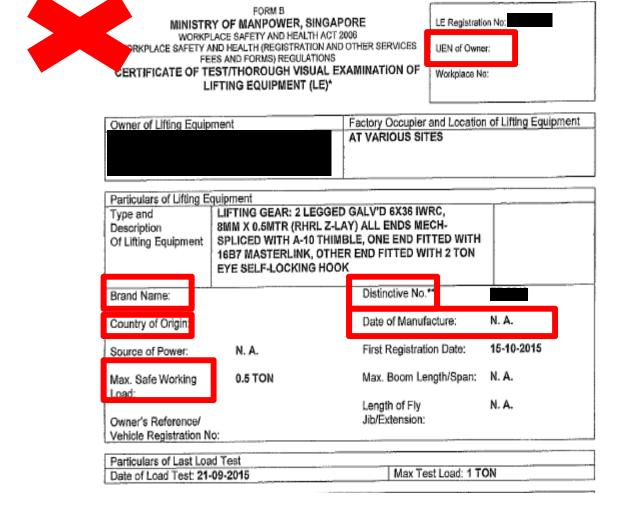
- 18. Ensure that all information on certificate are accurate
  - E.g. Year of manufacture on webbing sling is 2012. AE stated it as 2016 on the certificate.







### Indicating fields as 'unknown' is not acceptable.



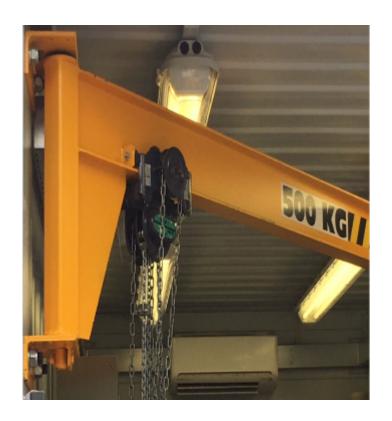
19. AE shall not test and examine a lifting equipment which includes all hoists, lifts, lifting gears, lifting appliances and lifting machines and certify it safe for use if any of the above fields is unknown.

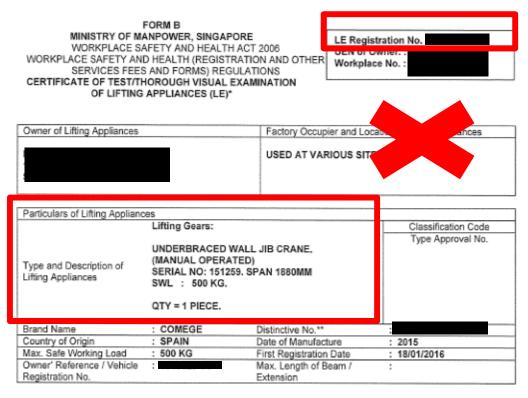


### WRONG CLASSIFICATION

## 20. AEs are to correctly classify equipment

An AE inspected a wall crane but issued a LG certificate







## USE OF LABORATORIES ACCREDITED BY SINGAPORE ACCREDITATION COUNCIL (SAC) FOR ALL NON-DESTRUCTIVE TESTING

- 21.AEs are reminded that all non- destructive testing/ examination shall be carried out by SAC-Singlas accredited laboratories. For example, thickness gauging of tower cranes, 10 yearly thickness gauging of pressure vessels, etc.
  - Testing results by non-SAC accredited laboratories are not recognised by MOM as compliance to our requirements.
  - SAC reports shall bear the SAC logo



## **Floor Cranes**





### **Authorised Examiners (Lifting Equipment)**

#### SAFETY CIRCULAR ON TESTING AND EXAMINATION OF "FLOOR CRANES"

"Floor cranes", as shown in figures 1 and 2 below, are commonly used in the workplace especially in the construction sector for the installation of external curtain wall such as glass window panels. Such "floor cranes" are deemed to be lifting machines and they shall not be used unless the cranes have been tested and examined by Authorised Examiners (AE), and issued with signed certificates of test and examination. "Floor cranes" should be classified under the classification code of 699-Other Mobile Cranes n.e.c.



Figure 1

Testing and Examination of "floor cranes"

These cranes should be tested and examined as a whole system (and not just individual component such as the winch). During such examination, AEs have to review and satisfied that such cranes are properly and adequately designed and is safe for its intended use. As these cranes are typically deployed to lift loads from the exterior of the building, the design shall take into account, among others, the effect of wind loading on its stability so that the cranes would not fall off from the edge of the building.

- 22. "Floor cranes" should be classified under the classification code of 699-Other Mobile Cranes n.e.c.
  - These cranes should be tested and examined as a whole system (and not just individual component such as the winch).
  - During such examination, AEs have to review and satisfied that such cranes are properly and adequately designed and is safe for its intended use.
  - As these cranes are typically deployed to lift loads from the exterior of the building, the design shall take into account, among others, the effect of wind loading on its stability so that the cranes would not fall off from the edge of the building.



- AEs are also required to conduct tests and examination to ensure that the cranes are without defects and functioning properly. This should also include verification that the crane is manufactured in accordance to design. The conditions of safe use, such as the maximum safe working load and the number of counterweights required, are to be clearly stated in the certificate of test and examination.
- 4 AEs should not certify that the crane is safe to use if you have doubt on its safe design and usage.
- 23. The conditions of safe use, e.g. maximum SWL and the number of counterweights required, are to be clearly stated in the certificate.
- 24.AEs should not certify that the crane is safe to use if you have doubt on its safe design and usage.



## **Building management unit**

- 25.AEs are expected to inspect and test the suspended scaffold to travel the complete track for the AE's inspection for load test
  - AEs are to indicate on LP cert, the track specific to the suspended scaffold







## Hand stacker as a LM

## 26. Hand Stacker



- Operated by a winch
- To be registered as a lifting machine (LM) under classification code 904

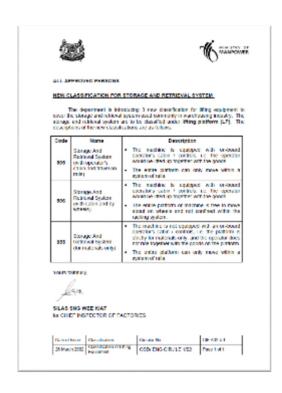
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### LP - Class 806 Storage and Retrieval System







### 27. Man-up order picker

- To be registered as a lifting platform (LP) under classification code 806
   Storage and Retrieval System (with cabin and by wheels)
- The machine is equipped with on-board operator's cabin/controls ie the operator would be lifted up togather with the goods
- The entire platform or machine is free to move about on wheels and not confined within the racking system

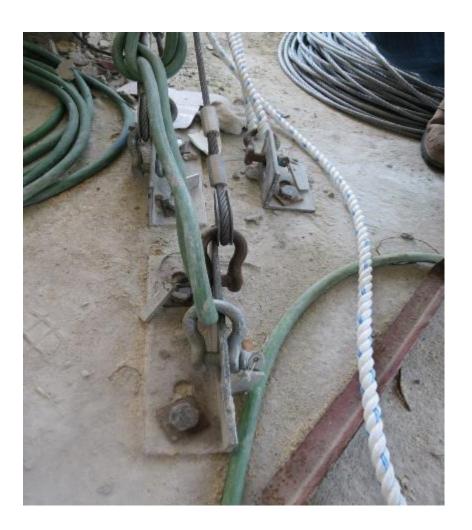
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## AE practices – Shackles for Suspended Scaffold

28. To be tested and examined by AE and properly tagged because it is easily removed and traceability will be an issue.







## **Entering of Correct Details**

29.AEs have to indicate clearly their name on the inspection sticker "Silver Sticker". Some of the AEs use numbers, but such records are no longer valid, as these records are not kept anymore.

OCCUPATIONAL SAFET	TY & HEALTH DEPARTMENT
C.A. REGISTRATION NO.	
SERIAL NO	769
TEST PRESSUREA GAD.	1434 kn/m3
TEST DATE	18/12/2013
SWP/SWL	1103 KN/m2
APPROVAL DATE	16/12/2014
INSPECTOR NO	Go In Spec
EXPIRY DATE	15/12/2010



## **Relating to Pressure Vessels**

### 30. Registration of New Pressure Vessels

 During registration of new PV units in iOSH, when there is no workplace number, AE should create a new workplace number. However, AE should not update any other field relating to occupier's information such as linking the workplace address as the occupier address.

### 31. Corporate Level Approval Scheme extension certificates

- AEs who conduct extension on the Corporate Level Approval Scheme are to ensure that extension certificates are generated using iOSH
- Manually generated extension certificates are not acceptable. This
  had previously been communicated to all AEs & Owners through
  email. AEs are to rectify and issue valid certificate via iOSH