Rope and Sling Specialists

LEEA Overhead Travelling Crane, (Operating and Slinging)
Course Outline

Training Course Outline/Overview				
Course Name	**Overhead Traveling Crane (Operating and Slinging)**		**Duration**	2 days 4 Delegates
Training Objective	To act as a Slinger / Banksman to Operate an overhead crane (A)			
Enabling Objective	**KLP No.**	**Key Learning Point**		**Method of Testing***
Carry out a brief covering: Health & Safety / Facilities / Refreshments and course objectives				
Demonstrate a knowledge of the legislation, regulations and standards governing the use of lifting equipment	1.0	**British & European Legislation** 1. UK: Criminal & Civil Law 2. EU: Status in UK Law		T
	1.1	**Health & Safety at Work Summary** 1. Section 2 – Brief Outline 2. Section 6 – CE marking 3. Section 7 & 8 - (Employees Duties)		T
	1.2	**Lifting Equipment Definitions & Terminology** 1. Lifting Operation 2. Lifting Equipment 3. Lifting Accessories 4. Lifting Machine 5. Thorough Examination 6. In Service Inspection / Pre Use Check 7. Responsible Person 8. Working Load Limit (WLL) 9. Safe Working Load (SWL) 10.Factor of Safety 11.Mode Factor		T
	1.3	**LOLER '98** 1. Regulation 2 – Interpretation 2. Regulation 3 – Application 3. Regulation 7 – Marking 4. Regulation 8 – Organisation 5. Regulation 9 - Thorough Examination **PUWER '98** 1. Regulation 3 - Application 2. Regulation 4 – Suitability 3. Regulation 5 – Maintenance 4. Regulation 6 – Inspection 5. Regulation 8 – Information & Instruction 6. Regulation 9 – Training		T
	2.0	**Lifting Equipment Definitions** 1. Lifting Operation 2. Lifting Equipment 3. Lifting Accessories 4. Lifting Machine 5. Thorough Examination 6. In Service Inspection/Pre Use Check 7. Working Load Limit (WLL) 8. Safe Working Load (SWL) 9. Mode Factor 10. Competent Person		T

	2.1	Requirements for a Pre Use Check and the benefits.	T
Demonstrate a knowledge of Force Influences & Rating Methods	2.3	Calculate the forces in Slings	T & P
	2.4	**Uniform Load Method** 1. How it is calculated (mode Factors) 2. Identification 3. Use (All new slings)	T
	2.5	**Mode Factor and Sling Length** 1.Number of legs on a 2 point, 3- and 4-point lift. 2.Sling length for 0-45° and 45-60° 3. Examples 4. Special Purpose Slings	T

Course Name	**Overhead Traveling Crane (Operating and Slinging) (B)**		
Enabling Objective	**KLP No.**	**Key Learning Point**	**Method of Testing***
Demonstrate calculating various weights	2.6	**Weight Estimation.** 1. Various weights	T
Demonstrate a knowledge of different types of lifting accessories/equipment and how to carry out a pre use check	3.0	**Textile Materials & Slings** 1. Identification of material slings 2. Different Materials 3. Effects of Acids & Alkalis 4. Colour Code (Label & Material) 5. Different Sling Types 6. Pre Use Check (Faults)	T & P
	3.1	**Chain Slings** 1. Types of Slings (Welded/Assembled) 2. Materials (HTS & Alloy) 3. Grade marks 4. Effects of Acids (Alloy Steel) 5. Different Types (Single/Multi Leg) 6. Pre Use Check (Faults) hooks and chains	T & P
	3.2	**Shackles** 1. Dee & Bow 2. Uses 3. Pre-use inspections	P
	3.3	**Hand Chain Blocks** 1. Lifting Chain 2. Uses & Limitations 3. Pre-use inspections	P
	3.4	**Eyebolts** 1. Dynamo/Collared/Eyebolt with Link 2. Uses & Restrictions 3. Pre Use Check 4. New Types	N/A
	3.5	**Steel Wire Rope Slings** 1. Manufacture 2. Lays (Ordinary & Lang's) 3. Different Terminations 4. Different Types (Single/Multi Leg) 5. Pre Use Check (Faults)	T & P
	3.6	**Sling Configurations** 1. Straight Pull 2. Choke Hitch 3. Basket Hitch(s) 4. Single & Double Wrap	T & P

		5. Back Hooking 6. Pocket Guides	
Demonstrate a knowledge of different types of lifting accessories/equipment and how to carry out a pre use check	3.7	**Lever Hoists** 1. Uses & Limitations 2. Pre Use Inspection	
	3.8	**Spreader Beams** 1. Uses and Limitations 2. Typical Assembly 3. Pre-use inspections	
	3.9	**Plate Clamps**. 1. Types 2. Markings 3. Pre-use inspections	T & P
	3.1.1	**Snatch Blocks** 1. Types 2. Markings 3. Pre-use Inspections	T & P
	3.1.2	**Magnets** 1. Definitions 2. Types 3. Markings, storing and handling 4. Safe use 5. Training	N/A
	3.1.3	**Vacuums** 1. Definitions 2. Types 3. Markings, storing and handling 4. Safe use 5. Training	N/A
	3.1.4	**Load Cells** 1. Types 2. Markings 3. Pre-use Inspections	N/A
	4.0	**Working at Height** 1. When would you work at height? 2. Key considerations	N/A
	4.1	**Communication** 1. Two-way radios 2. Hand signals 3. Emergency stop protocol.	T & P
	4.2	**Control of suspended load.** 1. Methods of controlling suspended load	P
	4.3	**Storage of Lifting accessories** 1. Examples	P

Course Name	Overhead Traveling Crane (Operating and Slinging) (B)

Enabling Objective	KLP No.	Key Learning Point	Method of Testing
Demonstrate various considerations	5.0	**Overhead Traveling crane.** 1. Types 2. Controls 3. Anti collision 4. Pre-use inspections	
	5.1	**Roles and Responsibilities as per BS7121** 1. Appointed Person 2. Crane Supervisor 3. Crane Co-ordinator 4. Slinger Signaller 5. Crane Operator 6. Maintenance Personnel 7. Combination of Roles	
	5.2	**Weather Conditions** 1. Monitoring Wind Speed	
	5.3	**Unattended Lifting Equipment** 1. General requirements	
	5.4	**General Considerations.** 1. Briefings 2. Inspections 3. Protection 4. Slips trips and falls 5. Operating the controls 6. Trial lifts 7. Centre of gravity 8. Test Communications 9. Load inspection 10. Travel path 11. Rated capacity 12. Weather 13. Hands off, Step Away, Safe Space	
	5.5	**HOSASS (Hands off, Step away, Safe Space** 1. Video	
	6.0	**Useful Documents** 1. Legislation 2. Code of Practice	
Demonstrate controlling empty hook	7.0	Control empty hook block.	
Demonstrate a knowledge of how to turn a load	7.1	Complete a lift by turning the load	P
Demonstrate a knowledge of crane signals in accordance with BS 7121	7.2	Correct Crane Signals	P
Practical Assessment	7.3	Correct Selection of Lifting Equipment and slinging methods	P
	7.4	Complete a Safe Lifting Operation	P

***** Method of testing is by either a Theoretical exam (T) or Practical (P) assessment