CURRICULUM

FOR THE TRADE OF

Cargo Handler

(Automobile / Bulk Commodity / Liquid Commodity)

UNDER

APPRENTICESHIP TRAINING SCHEME

सत्यमेव जयते

GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT& ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

CONTENTS

1. ACKNOWLEDGEMENT

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4. Flexol
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2. BACKGROUND

2. 1. Apprenticeship Training Scheme under Apprentice Act 1961

The Apprentices Act, 1961 was enacted with the objective of regulating the programme of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training. The Act makes it obligatory for employers in specified industries to engage apprentices in designated trades to impart Apprenticeship Training on the job in industry to school leavers and person having National Trade Certificate (ITI pass-outs) issued by National Council for Vocational Training (NCVT) to develop skilled manpower for the industry**.** There are five categories of apprentices namely**; trade apprentice, optional trade apprentice, graduate, technician and technician (vocational) apprentices.**

Qualifications and period of apprenticeship training of trade apprenticesand optional trade apprentices vary from trade to trade. The apprenticeship training consists of basic training followed by practical training. At the end of the training, the apprentices are required to appear in a trade test conducted by NCVT and those successful in the trade tests are awarded the National Apprenticeship Certificate.

The period of apprenticeship training for graduate (engineers), technician (diploma holders and technician (vocational) apprentices is one year. Certificates are awarded on completion of training by the Department of Education, Ministry of Human Resource Development.

2. 2. Changes in Industrial Scenario

Recently we have seen huge changes in the Indian industry. The Indian Industry registered an impressive growth during the last decade and half. The number of industries in India have increased manifold in the last fifteen

years especially in services and manufacturing sectors. It has been realized that India would become a prosperous and a modern state by raising skill levels, including by engaging a larger proportion of apprentices, will be critical to success; as will stronger collaboration between industry and the trainees to ensure the supply of skilled workforce and drive development through employment. Various initiatives to build up an adequate infrastructure for rapid industrialization and improve the industrial scenario in India have been taken.

2. 3. Reformation

The Apprentices Act, 1961 has been amended and brought into effect from 22nd December, 2014 to make it more responsive to industry and youth. Key amendments are as given below:

- Prescription of number of apprentices to be engaged at establishment levelinstead of trade-wise.
- Establishment can also engage apprentices in optional trades which are not designated, with the discretion of entry level qualification and syllabus.
- Scope has been extended also to non-engineering occupations.
- Establishments have been permitted to outsource basic training in an institute of their choice.
- The burden of compliance on industry has been reduced significantly.

3. RATIONALE

This candidate trained in this job role will be employed only in the Ports terminals, for cargo handling activities. The cargo handling equipment is such as Automobiles, Forklift, Ship Cranes & Bulk cargo loading and unloading equipment, Bulldozer, Slings, Shovels, Cargo net slings, Cargo hooks, Cargo pipelines, Cargo pipeline valves, Bulk cargo hoppers, Bulk cargo conveyor loading & unloading systems, shore cranes. Each employee in a port/terminal has a specific job. There are different job titles in each of the different types of terminals, and each has the different importance:

1. The greater degree of relevance of the training with latest advancements of the industry will enhance the employability opportunities.
2. Ability to use latest tool& equipment's and their different techniques.
3. Acquire knowledge of loading & unloading in a terminal environment, coordination with other departments, and handle the cargo in terminal and onboard a ship.
4. Ability to use the computer for electronic documentation of information and understand instructions while handling equipment's.
5. Ability to use the various documents to manage and update logs.
6. Exposure of Cargo Handling equipment's for better understanding the loading and unloading processes.
7. Prioritize the tasks obtained and plan for the day.
8. Resolve the query within the target turnaround time (TAT)
9. Ability to concentrate on task at hand and complete it without errors
10. Ability to understand the technical specification of the cargo handling equipment's and handle it accordingly.
11. Identify and Resolve the query
12. Exposure to regulations, use of work equipment, maintenance, control of substances hazardous to health with respect to Safety and Security aspects.
13. Exposure to Validate the relevant data obtained by cross-verification

14. Assess what is to be done to resolve the issue.
15. Ability to understand the additional information required and contact details of the relevant personnel in the department.
16. Ability to manage client expectations.
17. Able to communicate and behave in a professional manner when dealing with customers, colleagues and supervisors
18. Knowledge of Risk and impact of not following defined procedures/work instructions.
19. Able to understand clearly and gaining extensive knowledge of the company, services offered, and related solutions to problems.
20. Exposure to Reporting and documentation.
21. Ability to carry out basic organizational procedures in resolving the query and updating the unsolved query to suit requirements.
22. Ability to understand and maintain health, safety and security standards during cargo loading and unloading.

4. JOB ROLE

Brief description of Job role:

Cargo Handler deals with loading & unloading of cargofrom the ships at the port terminals. It uses an extensive variety of manual, mechanical, semi-robotized, and computerized gear and incorporates thought of the assurance, stockpiling, and control of materials, in a short time, reduced resources, safe handling, and utility of space.

Cargo Handler takes care of handling these equipment's, which gets trained in safe and easy handling of these machines. These machines shall be automated, semi-automated or manual operated. Operating, maintaining and handling of these equipment's requires particular skill and technical knowledge. Terminals for various types of ships' such as RO-RO/Pure car carriers, Bulk Carriers & Tankers commodities uses different MHE and not mandatory that they should use all types so cargo handler undergoes special training in any of these equipment specifics to the industry. Basic Training Providing Institutes should get to know about safe handling of this equipment as they are expensive and technical sensitive operation is required. Any negligence or mishandling or fault may lead to accident at the shop floor by causing physical damage to the human or material or infrastructure.

Cargo Handler should plan and organize assigned work and detect & resolve issues during execution. Preventive Maintenance is foremost step which will be performed by the handler before start of any of this equipment. Demonstrate viable solutions and agree tasks within the team. Communicate with required clarity and understand technical language. Be sensitive to environment, self-learning and keep hands on increased productivity.

5. LEARNING OUTCOMES

A. GENERIC OUTCOME

- Recognize & comply safe working practices, environment regulation and housekeeping.
- Work in a team, understand and practice soft skills, technical English to communicate with required clarity.
- Illustrate concept and principles of basic arithmetic calculation, algebraic, trigonometric, statistics and apply knowledge of specific area to perform practical operations which requires well developed skills.
- Explain basic science in the field of study including basic electrical, and hydraulics & pneumatics.
- Read and apply engineering drawing for different application in the field of work.
- Explain the knowledge of general concept, principles of productivity, quality tools, and labour welfare legislation and apply such in day to day work to improve productivity & quality.
- Explain the general concept and process of energy conservation, global warming and pollution and contribute in day to day work by optimally using available resources.
- Explain and display sensitivity towards personnel finance, entrepreneurship and manage/organize related task in day to day work for personal & societal growth.
- Apply the general concept of basic computer, basic operating system and uses of internet services to take benefit of IT developments in the industry.

B. SPECIFIC OUTCOME

- Explain the type of ships, cargo carried, ports and terminals, activities carried out in ports & terminals, loading, un loading and uses of Material Handling.

- Apply control of materials all through their loading, unloading, securing, unlashing, and stocking.

- Explain different types of Material Handling Equipments (MHEs) and their uses.

- Understanding the capacity and constraints of MHEs, and select the right onefor the right purpose.

- Operating of all types of Material Handling Equipments (automated, semi Automated, mechanical or manually operated)

- Explain the general maintenance and repair procedures of MHEs.

- Explain DO's and DONT's while handling the MHEs

- Plan and organize assigned work

- Detect & resolve issues during execution demonstrate possible solutions and agree tasks within the team.

- Communicate with required clarity.

6. GENERAL INFORMATION

1. Name of the Trade : **Cargo Handler**
(Automobiles / Bulk commodity
Liquid commodity)

2. Duration of Apprenticeship Training : **15 Months**
(i) Basic Training: 03 Months
(ii) Practical Training : 12 Months

3. Entry Qualification : Passed12thclass examination under 10+2 system of education or its equivalent.

4. Selection of Apprentices :The apprentices will be selected as per the Apprentices Act amended time to time

5. Rebate :Trainee pass-outs from PMKVY or MES-SDI
or
Any central Government/state government approved scheme in course/trade/module relevant to the proposed optional trade.

Note: *Industry may impart training as per above time schedule, however this is not fixed. The industry may adjust the duration of training considering the fact that all the components under the syllabus must be covered. However the flexibility should be given keeping in view that no safety aspect is compromised and duration of industry training to be remains as 1 year.*

7. COURSE STRUCTURE

Training duration details: -

Time (in months)	1-3	4-15
Basic Training	**Block– I**	**-----**
Practical Training (On - job training)	**----**	**Block – II**

Components of Training	Duration of Training in Months →														
↓	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Basic Training Block - I															
Practical Training Block - II															

8. SYLLABUS

8.1 BASIC TRAINING(BLOCK – I)

DURATION: 03 MONTHS

GENERAL INFORMATION

1. Name of the Trade : **CARGO HANDLER**
   (Automobiles / Bulk Commodity /Liquid commodity)

2. Duration of Basic training : 03 months/500 hours

Breakup of Basic Training

1)	Theory and Practical:	390 Hrs
2)	Engineering drawing:	35 hours
3)	Workshop calculation: And Science	20 hours
4)	Employability skills :	55 hrs.

3. Batch size : 20

4. Power Norms : 4 KW

5. Space Norms : 25 Sq. m

6. Instructor Qualification : Degree/Diploma in Engineering or Masters from recognized university/Board with one/two year post qualification experience respectively in the relevant field

7. Tools, Equipment's & Machinery required : - As per Annexure – I

8.1 DETAIL SYLLABUS OF BASIC TRAINING

8.1.1 DETAIL SYLLABUS OF PROFESSIONAL SKILLS &PROFESSIONAL KNOWLEDGE

Block –I

Basic Training

Sr. No.	Professional Skills (Trade Practical)	Professional Knowledge (Trade Theory)
1.	Understanding of the Safety rules and Procedures and taking precautions in the workplace.	The safety rules and` Procedures to be observed by Cargo Handler
2.	Follow Company safety policy inside the company premises. Selection and use of different safety equipment's. Use PPE properly	Company safety policy. Different safety equipment's and their use. Proper usage of PPE and consequences of wrong usage
3.	Follow healthy /safe work practices and Maintain Health, Safety and Security measures while working onboard ships or while working in the ports and terminals	Maintenance of Health, Safety and Security measures while working onboard ships or while working in the ports and terminals
4.	Make visits to different Types of ports and terminals. Follow the activities carried out in ports & terminals	Port layout and basic operations conducted atdifferent types of terminals. • Ports& Its Importance • Introduction to ports • Types of ports & terminals • Activities carried out in ports & terminals
5.	Make visits to different terminals and ports for different types of ships and identify parts of ships and their functions	Different type of ships andship parts • General cargo • Dry and Liquid bulk carrier • RO-RO

		• Reefer • Container.
6.	Make visits to automobile yards, warehouses, stockpiles, container yard, liquid terminals and identify different types of Cargos and their storage	Types of cargo carried by thevarious ship types • General/Break bulk cargo • Dry bulk cargo • Liquid bulk cargo • RO-RO cargo • Heavy lift cargo • Reefer cargo • Container cargo Heavy lift cargo
7.	Handle different types of gear and equipment and Perform loading and unloading of different types of cargos	Various types of Ship andshore gear used for loadingand unloading of cargo • Ship derricks • Ship cranes • Pipelines and pumps • Loading & unloading Ramps • Shore mobile cranes • Shore gantry cranes • Shore fixed grab cranes
8.	Make visits to terminals and ship to see actual cargo stowage onboard ships Prepare Stowage plan	Basics of Cargo stowage andstowage plan • Introduction to Stowage plan • Importance of cargo planning • Stowage plan
9.	Make visits to terminals and stockyard. Understand and demonstrate the operations of loading and unloading of Automobiles, Dry bulk and Liquid bulk cargo.	Basics of loading and unloading of Automobiles, Dry Bulk and Liquid bulk Cargo • Driving of manual & Auto transmission automobiles • Trimming of Dry Bulk cargo • Pressure and back pressure in liquid cargo pipelines

10.	Drive and operate Various controls (Both manual and Auto) and displays PerformLoading and Unloading activities. Handle Automobile Cargos	Basics of Automobile cargoHandling • Introduction to Automobile driving • Various controls and display information • Explain functions of various controls in Manual & Auto transmission automobiles • Explain Loading and Unloading activities
11.	Handle dry bulk cargo. Take precautions on Hazards presented by different types of dry bulk cargo shipped by sea Calculate load density and maximum cargo. Perform the loading accordingly	Basics of dry bulk cargo Handling • Hazards presented by different types of dry bulk cargo shipped by sea • Load density and calculating maximum cargo allowed to be loaded in a compartment
12.	Handle liquid bulk cargo Take precautions on Hazards presented by different types of liquid bulk cargo shipped by sea Follow ullage and sounding procedure	Basics of liquid bulk cargo Handling • Hazards presented by different types of liquid bulk cargo shipped by sea • Ullage and sounding procedure • Space for expansion due variation in temperature during voyage
13.	Identify Different Types of Material Handling Equipment's (MHE) used for loading and unloading of Dry & Liquid bulk cargo, their capacity &constraints and place of use. Follow Operating Procedures and Operate various Material Handling equipment's Perform routine check & maintain MHEs Carry out preventive Maintenance	Basics of Material Handling Equipment's used for loading and unloading of Dry & Liquid bulk cargo Different Types of Material Handling Equipment's (MHE) The capacity and constraints of MHE's Type of MHE's and their place of use Operation Procedures for Operating and

	and follow available methods and procedures Make Visits to Ports & Terminals for Practical applications of MHE used for loading and unloading activities Identify the parts of the MHE's. Select type of MHE depending on place of use, Capacity and constraints Identify pre operational checks.Perform Routine Checkup, maintenance and Repairs. Use controls of MHEs. Follow Dos and Don'ts of different types of MHEs. Perform Pre-Operating and Operational Checks on MHEs Operate a Bulldozer, JCB, Poclain for collecting Dry Bulk Cargo. Types of Controls (Sensor Control, Signal Controls, Display Boards) Operate a pump for pumping liquid bulk cargo Visit to the MHE's workshop / repair center. Perform all types of repairs and estimate the time taken to repair each fault.	Maintaining MHE's Understanding the pre operational conditions required Ensuring the Maintenance and repairconditions and routine checks The importance of Preventive maintenance, Methods and procedures Methods and procedures for before and post usage. The usage of controls in MHE's. DO's and DON'T's while handling different types of MHE's. The Pre- Operating Checks and Operational checks to be performed on MHEs The basic handling errors and the Operational errors that occur in common The general Maintenance and Repairs procedure. The time taken to complete each type of Maintenance activity The basic repairs that will occur during operation in each type of MHE's
14.	**Revision & Internal Assessment**	

8.1.2 SYLLABUS FOR WORKSHOP SCIENCE & CALCULATION

Duration – 20 Hrs

Unit	:	Systems of unitFPS, CGS, MKS/SI unit, unit of length, Mass and time, Conversion of units
Basic Mathematics	:	BODMAS rule Fraction-Addition, Subtraction, multiplication and Division-Problem solving, Decimal Addition. Simple calculation using Scientific Calculator.Conversion of Fraction to Decimal and vice versa
Percentage	**:**	Introduction, Simple calculation. Changing percentage to fraction and decimal & vice-versa
Material Science	**:**	Definition, properties (physical & mechanical) and uses of Metal, Non-metal, Alloy &Insulator. Types of ferrous and Non-ferrous metals. Difference between Ferrous and Nonferrous metals.
Mass, Weight and Density:		Mass, Unit of Mass, Weight, difference between mass and weight. Density, unit of density. Relation between mass, weight & density. Simple problems related to mass, weight, and density.
Menstruation	**:**	Area and perimeter of square, rectangle, triangle, circle, semi circle, Volume of solids – cube, cuboid, cylinder and Sphere. Surface area of solids – cube, cuboid, cylinder and Sphere
Heat & Temperature	**:**	Heat and temperature, their units, difference between heat and temperature, boiling point, melting point, Scale of temperature, relation between different scale of temperature. Thermometer, pyrometer. Transmissionof heat, conduction, convection, radiation.

8.1.2 SYLLABUS FOR ENGINEERING DRAWING
Duration :35 Hours

Introduction to Engineering Drawing and Drawing Instruments : - Conventions - Viewing of engineering drawing sheets. - Method of Folding of printed Drawing Sheet as per BIS SP:46- 2003 - Drawing board, T-Square, Drafter (Drafting M/c), Set Squares, Protractor, Drawing Instrument Box (Compass, Dividers, Scale, Diagonal Scales etc.), Pencils of different Grades, Drawing pins / Clips.

Lines : - Definition, types and applications in Drawing as per BIS SP:46-2003 - Classification of lines (Hidden, centre, construction, Extension, Dimension, Section) - Drawing lines of given length (Straight, curved) - Drawing of parallel lines, perpendicular line - Methods of Division of line segment

Free hand drawing of - Lines, polygons, ellipse, etc. - geometrical figures and blocks 12 with dimension Transferring measurement from the given object to the free hand sketches.

Drawing of Geometrical Figures: Definition, nomenclature and practice of - Angle: Measurement and its types, method of bisecting. - Triangle -different types - Rectangle, Square, Rhombus, Parallelogram. - Circle and its elements.

Sizes and Layout of DrawingSheets - Selection of sizes - Title Block, its position and content - Item Reference on Drawing Sheet (Item List)
Method of presentation of Engineering Drawing - Pictorial View - Orthographic View - Isometric view

Drawing of Solid figures (Cube, Cuboids, Cone) with dimensions.
Free hand Drawing of Solid figures (Prism, Pyramid, Frustum of Cone and Pyramid.) with dimensions.

Free Hand sketch of hand tools and measuring tools used in respective trades.
Projections: - Concept of axes plane and quadrant. - Orthographic projections - Method of first angle and third angle projections (definition and difference) - Symbol of 1st angle and 3rd angle projection as per IS specification
Drawing of Orthographic projection in 3rd angle.

8.1.2 EMPLOYABILITY SKILLS

GENERAL INFORMATION

1. Name of the subject : **EMPLOYABILITY SKILLS**

2. Applicability : ATS- Mandatory for fresher only

3. Hours of Instruction : 55 Hrs.

4. Instructor Qualification :

   i) MBA/BBA with two years' experience or graduate in sociology/social welfare/Economics with two years' experience and trained in Employability skill from DGT Institute.

   And

   ii) Must have studied in English/Communication Skill and Basic Computer at 12^{th} / diploma level

   OR

   iii) Existing Social Study Instructor duly trained in Employability Skill from DGT Institute.

8.1.4. SYLLABUS OF EMPLOYABILITY SKILLS

Topic No.	Topic	Duration (in hours)
	English Literacy	**8**
1	**Reading** Reading and understanding simple sentences about self, work and environment	
2	**Writing** Construction of simple sentences Writing simple English	
3	**Speaking / Spoken English** Speaking with preparation on self, on family, on friends/ classmates, on know, picture reading gain confidence through role-playing and discussions on current happening job description, asking about someone's job habitual actions. Cardinal (fundamental) numbers ordinal numbers. Taking messages, passing messages on and filling in message forms Greeting and introductions office hospitality, Resumes or curriculum vita essential parts, letters of application reference to previous communication.	
	I.T. Literacy	**10**
1	**Basics of Computer** Introduction, Computer and its applications, Hardware and peripherals, Switching on-Starting and shutting down of computer.	
2	**Word processing and Worksheet** Basic operating of Word Processing, Creating, opening and closing Documents, use of shortcuts, Creating and Editing of Text, Formatting the Text, Insertion & creation of Tables. Printing document. Basics of Excel worksheet, understanding basic commands, creating simple worksheets, understanding sample worksheets, use of simple formulas and functions, Printing of simple excel sheets, Use of External memory like pen drive, CD, DVD etc, Use of Common applications.	

3	**Computer Networking and INTERNET** **Computer Networking and INTERNET** - Accessing the Internet using Web Browser, Downloading and Printing Web Pages, Opening an email account and use of email. Social media sites and its implication	
	Communication Skill	**8**
1	**Introduction to Communication Skills** Communication and its importance Principles of Effective communication Types of communication - verbal, non verbal, written, email, talking on phone. Non verbal communication -characteristics, components-Para-language Body - language Barriers to communication and dealing with barriers. Handling nervousness/ discomfort.	
2	**Listening Skills** Listening-hearing and listening, effective listening, barriers to effective listening guidelines for effective listening. Triple- A Listening - Attitude, Attention & Adjustment. Active Listening Skills.	
3	**Motivational Training** Characteristics Essential to Achieving Success The Power of Positive Attitude Self awareness Importance of Commitment Ethics and Values Ways to Motivate Oneself Personal Goal setting and Employability Planning.	
4	**Facing Interviews** Manners, Etiquettes, Dress code for an interview Do's & Don'ts for an interview	
5	**Behavioral Skills** Problem Solving Confidence Building Attitude	

	Entrepreneurship skill	
1	**Concept of Entrepreneurship** **Entrepreneurship** - Enterprises:-Conceptual issue Source of business ideas, Entrepreneurial opportunities, The process of setting up a business.	**08**
2	**Institutions Support** Preparation of Project. Role of Various Schemes and Institutes for self-employment i.e. DIC, SIDA, SISI, NSIC, SIDO, Idea for financing/ non financing support agencies to familiarizes with the Policies /Programmes & procedure & the available scheme.	
	Productivity	**06**
1	**Productivity** Definition, Necessity, Meaning of GDP.	
2	**Affecting Factors** Skills, Working Aids, Automation, Environment, Motivation How improves or slows down.	
3	**Personal Finance Management** Banking processes, Handling ATM, KYC registration, safe cash handling, Personal risk and Insurance.	
	Occupational Safety, Health & Environment Education	**08**
1	**Safety & Health** Introduction to Occupational Safety and Health importance of safety and health at workplace.	
2	**Occupational Hazards** Basic Hazards, Chemical Hazards, Vibroacoustic Hazards, Mechanical Hazards, Electrical Hazards, Thermal Hazards. Occupational health, Occupational hygienic, Occupational Diseases/ Disorders & its prevention.	
3	**Accident & safety** Basic principles for protective equipment. Accident Prevention techniques - control of accidents and safety measures.	
4	**First Aid** Care of injured & Sick at the workplaces, First-Aid & Transportation of sick person	

	Labour Welfare Legislation	
1	**Welfare Acts** Benefits guaranteed under various acts- Factories Act, Apprenticeship Act, Employees State Insurance Act (ESI), Payment Wages Act, Employees Provident Fund Act, The Workmen's compensation Act.	**02**
	Quality Tools	
1	**Quality Consciousness :** Meaning of quality, Quality Characteristic	
2	**Quality Circles :** Definition, Advantage of small group activity, objectives of quality Circle, Roles and function of Quality Circles in Organization, Operation of Quality circle. Approaches to starting Quality Circles, Steps for continuation Quality Circles.	**05**
3	**House Keeping :** Purpose of Housekeeping, Practice of good Housekeeping.	
4	**Quality Tools** Basic quality tools with a few examples	

8.2 PRACTICAL TRAINING (ON-JOB TRAINING)

(BLOCK – I)

GENERAL INFORMATION

Name of the Trade : **CARGO HANDLER**
(Automobiles / Bulk Commodity /Liquid commodity)

Duration of On-Job Training :12 months

Instructors Qualifications

i) Degree/Diploma in Mechanical Engineering from recognized university/Board With one/two year post qualification experience in the relevant field.

OR

ii) LSC approved Packaging with three year post qualification experience in the relevant field.

Infrastructure for On-Job Training : - As per Annexure – II

8.2. PRACTICAL TRAINING (ON-JOB TRAINING)

(BLOCK – I)

DURATION: 12 MONTHS

8.2.1 Syllabus for Practical Training / On the Job Training

Duration: 12 months

- **Familiarization with the industry. Health, Safety & Environment:** Introduction to safety Equipment's and their uses. Demonstration of 5S Concept on shop floor. Use of Personal protective Equipment's (PPE).
- Prepare different types of documentation as per industrial need using different methods of recording information.
- Develop good appearance and behavior, practice, tasks as per industry standard and express good communication skill.
- Prepare and maintain work area and maintain health and safety at the work place.
- Explain the various activities of warehouse operations
- Carryout the warehouse activities like receiving, sorting, put away, sorting, loading, unloading, packing, dispatch, and quality parameters
- Identify the different types of material handling equipment's that is being handled inside the organization.
- Understand the uses and limitations of each type of MHE's.
- Obtain pre request knowledge on operating procedure of the MHE's
- Maintain safe distance in working area and use PPE's all time.
- Apply the operating procedure of the MHE's under supervision and guidance.
- Understand the pre operating conditions for the MHE's and understand the tolerance.
- Handle the MHE's under guidance in an empty format (without load) at the idle time of operations.
- Handle MHE's and adjust the various settings available to know as when and how to use each of it, under guidance.

- Understand the tolerance levels and adjustments that shall be made on the MHE's.
- Carry the small loads between straight line points under guidance on idle times.
- Operate the MHE's during working hours during day's operations and help shop floor employees in assisting short distance loads.
- Handle large loads and understand the tolerance and explore the risks under supervision
- Handle pallet loads, boxes loads and various loads as per the company's needs.
- Maintain safety and security at all times
- Mock exam to review performance and understand the errors caused during operations.
- Perform the maintenance and repair activities
- Perform small repair activities under supervision and guidance. Eg- Oil inspection, battery recharging, correcting tolerances etc.
- Understand critical parts of the MHE's and its importance during repairs and maintenance
- Identify the risk options, accidents and to stay away.
- Operate different types of MHE's available at the shop floor and handle various consignments, practice loading and unloading, perform correct and safe removal of parts and MHE's.
- Build on effective communication with inter departments, sub-ordinates and super-ordinates for smooth MHE operations and safety procedures.
- Perform TPM (Total Production Management), TQM (Total Quality Management) and record keeping system

9. ASSESSMENT STANDARD

9.1 Assessment Guideline:

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment. The nature of special needs should be taken into account while undertaking assessment. Due consideration to be given while assessing for team work, avoidance/reduction of scrape/wastage and disposal of scarp/wastage as per procedure, behavioral attitude and regularity in training.

The following marking pattern to be adopted while assessing:

a) Weightage in the range of 60-75% to be allotted during assessment under following performance level:

For this grade, the candidate with occasional guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of an acceptable standard of craftsmanship.

In this work there is evidence of:

- Good skill levels in the use of hand tools, machine tools and workshop equipment
- Many tolerances while undertaking different work are in line with those demanded by the component/job.
- A fairly good level of neatness and consistency in the finish
- Occasional support in completing the project/job.

b) Weightage in the range of above75%- 90% to be allotted during assessment under following performance level:

For this grade, the candidate, with little guidance and showing due regard for safety procedures and practices, has produced work which demonstrates attainment of a reasonable standard of craftsmanship.

In this work there is evidence of:

- good skill levels in the use of hand tools, machine tools and workshop equipment
- The majority of tolerances while undertaking different work are in line with those demanded by the component/job.
- a good level of neatness and consistency in the finish
- little support in completing the project/job

c) Weightage in the range of above 90% to be allotted during assessment under following performance level:

For performance in this grade, the candidate, with minimal or no support in organization and execution and with due regard for safety procedures and practices, has produced work which demonstrates attainment of a high standard of craftsmanship.

In this work there is evidence of:

- High skill levels in the use of hand tools, machine tools and workshop equipment
- Tolerances while undertaking different work being substantially in line with those demanded by the component/job.
- A high level of neatness and consistency in the finish.
- Minimal or no support in completing the project

10. FURTHER LEARNING PATHWAYS

Employment opportunities:

On successful completion of this course, the candidates shall be gainfullyemployed in the following industries:

1. Customs Bonded Warehouses.
2. Inland Container Depo / Container Freight Station.
3. Ports / Airports / Land Ports.
4. Customs Brokers Agency.
5. Surveyor Agency.
6. Forwarding Companies.
7. Shipping Lines / Airlines.
8. Transporters.
9. Courier Companies.
10. Importers / Exporters.

ANNEXURE – I

TOOLS & EQUIPMENT FOR BASIC TRAINING

INFRASTRUCTURE FOR PROFESSIONAL SKILL & PROFESSIONAL KNOWLEDGE

TRADE : CARGO HANDLER

(Automobiles / Bulk Commodity /Liquid commodity)

APPRENTICES TOOL KIT:-

Sl. No.	Name of the items	Quantity (indicative)
1.	Safety Shoes	20 pairs
2.	Safety Helmet	20
3.	Gloves	20 pairs
4.	Reflector Jackets	20
5.	Ear Plugs	20 pairs
6.	Industrial Goggles	20
7.	SOP Charts	20
8.	Safety Norms Handbook	20
9.	Technical specification Sheet	1x 5sets
		(1 each per MHES type)
10.	Material Safety Data Sheet	20
11.	DO’s and Don’ts Sheet	1x 5 sets
		(1 each per MHES type)

Note: *In case of basic training the BTP may hire the Material Handling Equipments if required except if the BTP is the manufacturer of the equipment. Tools, equipment and machinery available in the industry may be used for imparting basic training if the BTP is setup by the Industry*

ANNEXURE – II

INFRASTRUCTURE FOR ON-JOB TRAINING

Trade : CARGO HANDLER

(Automobiles / Bulk Commodity /Liquid commodity)

Actual training will depend on the existing facilities available in the establishments. However, the industry should ensure that the broad skills defined against On-Job Training part (i.e. 12 months) are imparted. In case of any shortfall, the concerned industry may impart the training in any other industry.

ANNEXURE-III

GUIDELINES FOR INSTRUCTORS AND PAPER SETTERS

1. Due care to be taken for proper & inclusive delivery among the batch. Some of the following method of delivery may be adopted:

   A) LECTURE

   B) LESSON

   C) DEMONSTRATION

   D) PRACTICE

   E) GROUP DISCUSSION

   F) DISCUSSION WITH PEER GROUP

   G) PROJECT WORK

   H) INDUSTRIAL VISIT

2. Maximum utilization of latest form of training viz., audio visual aids, integration of IT, etc. may be adopted.
3. The total hours to be devoted against each topic may be decided with due diligence to safety & with prioritizing transfer of required skills.

ANNEXURE - IV

List of Basic Training providers recommended by LSC		
S.No	**Name of Basic Training Providers**	**Location**
1	Allcargo Logistics Limited	Tamil Nadu/Maharashtra
2	Alliance Institute of Advanced Pharmaceutical and Health Sciences	Telangana/Andhra Pradesh
3	Artem institute of logistics and transports	Tamil Nadu
4	Confederation of indian industry(CII) Institute of Logistics	PAN India
5	Daksya Academy Pvt Ltd	PAN India
6	Darcl Parable	Haryana
7	De Unique Educational Society (Softdot Institute)	PAN India
8	Degain Group	Maharashtra
9	Express Industry Council of India	PAN India
10	Green Earth Logistics Pvt. Ltd.	Tamil Nadu
11	INNOVISION LIMITED	PAN India
12	JBS Academy Pvt Ltd.	Gujarat
13	Nidan Technologies Private Limited	Maharashtra/Madhya Pradesh
14	People XL(Jobs connect hr solutions Pvt. Ltd)	South India
15	Premier Center for Competency Training	Tamil Nadu
16	Safeducate Learning Pvt. Ltd.	PAN India
17	Shri Technologies	PAN India
18	ST.BRITTO'S COLLEGE	Tamil Nadu
19	SynchroServe Global Solutions Private Limited	Telangana/Andhra Pradesh
20	Telangana Jagruthi	Telangana
21	TVS Training & Services Private Limited	Tamil Nadu
22	UPDATER SERVICES PVT LTD	South India

ANNEXURE - V

List of Assessment Agency for basic training recommended by LSC		
SL.NO.	**Name of Assessment Agency**	**Location**
1	Hemsen EXIM LLP	PAN India
2	Eduworld Consultants Pvt. Ltd,	
3	CII (Confederation of Indian Industry)	
4	Induslynk Training Services Private Limited (Mettl)	
5	Manipal City & Guilds Pvt Ltd	
6	GreenArrows Safety Management (P) Ltd	
7	I-Vintage solutions Pvt. Ltd.	
8	CoCubes Technologies Pvt Ltd	
9	Samhit Assessments & research foundation	
10	Formac Software Services	
11	Unison Academy	
12	Prima Competencies Pvt. Ltd	
13	Brisk Mind Pvt Ltd	
14	Edu Vantage Pvt. Ltd.	
15	Lead Assessment	
16	C & K Management Limited	
17	Krish Networks	
18	Society for education and Environmental training	
19	D'Pariksha	
20	Anagha Solutions	
21	Ashvi Consulting	
22	Shri Guru Hargovind Society	