



Skill India
कौशल भारत-कुशल भारत



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



N S D C
National
Skill Development
Corporation

Transforming the skill landscape



Participant Handbook

Sector
Textile Sector Skill Council

Sub-Sector
Handloom

Occupation
Weaver

Reference ID: **TSC/Q 7303, Version 1.0**
NSQF Level 4



**Two shaft Handloom
Weaver**

Published by

**All Rights Reserved,
First Edition, August 2017**

Printed in India at

Copyright © 2017

Textile Sector Skill Council (TSC)

Textile Sector Skill Council Contact Details:

Address: 15th Floor, Nirmal Tower, 26, Barakhamba Road, New Delhi - 110 001

Email: info@texskill.in

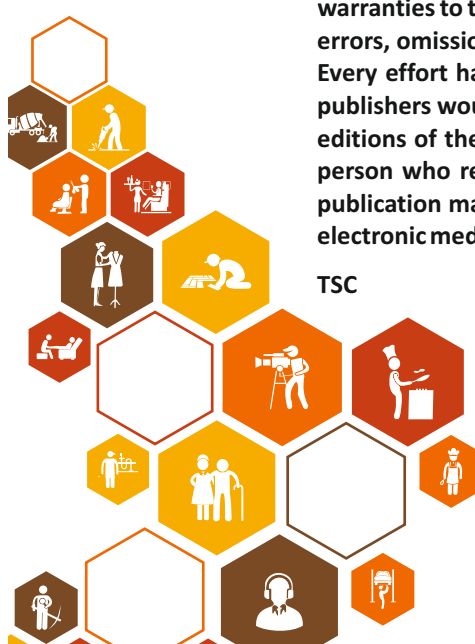
Phone: 011-43536355-57

Web: www.texskill.in

Disclaimer

The information contained herein has been obtained from sources reliable to TSC disclaims all warranties to the accuracy, completeness or adequacy of such information. TSC shall have no liability for errors, omissions, or inadequacies, in the information contained herein, or for interpretations thereof. Every effort has been made to trace the owners of the copyright material included in the book. The publishers would be grateful for any omissions brought to their notice for acknowledgements in future editions of the book. No entity in TSC shall be responsible for any loss whatsoever, sustained by any person who relies on this material. The material in this publication is copyrighted. No parts of this publication may be reproduced, stored or distributed in any form or by any means either on paper or electronic media, unless authorized by

TSC





Shri Narendra Modi
Prime Minister of India

**“ Skilling is building a better India.
If we have to move India towards
development then Skill Development
should be our mission. ”**



Certificate

COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

TEXTILE SECTOR SKILL COUNCIL

for

SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Two Shaft Handloom Weaver'** QP No. '7303; **NSQF Level 4'**

Date of issuance: **October 10th, 2016**

Valid up to*: **October 9th, 2018**

*Valid up to the next review date of the Qualification Pack or the
'Valid up to' date mentioned above (whichever is earlier)

Dr. J.V. Rao
CEO
(Textile Sector Skill Council)

Acknowledgements

Textile Sector Skill Council (TSC) wishes to place on record its deep appreciation to Caravan Evolved Craft Private Limited, Bangalore for providing valuable technical inputs and for its substantial contribution in developing the content for the Trainee Handbook.

TSC also sincerely thanks Ministry of Skill Development & Entrepreneurship (MSDE) and National Skill Development Corporation (NSDC) in supporting us to prepare the Handbook.

Endorsements



About This Book

This Participant Handbook is designed to enable training for the specific Qualification Pack (QP) Two Shaft Handloom Weaver. Each National Occupational (NOS) is covered across Unit/s.

All the activities carried out by an operator are covered in this course. Upon successful completion of this course the candidate will be eligible to work as Two Shaft Handloom Weaver.

Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS.

1. Introduction
2. Carry out pre weaving activities - TSC/ N 7305
3. Operate the loom - TSC/ N 7306
4. Contribute to achieve quality in handloom weaving - TSC/ N 7307
5. Maintain work area and tools in handloom sector - TSC/ N 9005
6. Working in a team in handloom sector - TSC/ N 9006
7. Maintain health, safety and security at work place in handloom sector - TSC/ N 9007
8. Comply with work place requirements in handloom sector - TSC/ N 9008

Symbols Used



Key Learning
Outcomes



Notes



Unit
Objectives



Tips

Table of Contents

S.No	Modules and Units	Page No
1.	Introduction	1
	Unit 1.1 - Textile Industry and Handloom in India – An Overview	3
	Unit 1.2 - Handloom Industry – History, Origin and Significance	9
	Unit 1.3 - Basic Textile Terminology – Fiber, Yarn and Fabric	11
	Unit 1.4 - Job Role Description – 2 Shaft Handloom Weaver	17
2.	Pre-Weaving Activities (TSC/ N 7305)	19
	Unit 2.1 - Preparatory Processes for Yarn	21
	Unit 2.2 - Warp Calculations	25
	Unit 2.3 - Warp Making	27
	Unit 2.4 - Loom Setting – Drafting and Denting	30
	Unit 2.5 - Design Specification Analysis	36
	Unit 2.6 - Loom Preparation	38
3.	Operating the Loom - Weaving (TSC / N 7306)	39
	Unit 3.1 - The Loom – Parts of Loom	41
	Unit 3.2 - The Loom – Types of looms	43
	Unit 3.3 - Introduction to weaving and basic weaves	47
	Unit 3.4 - Motions of the loom	54
	Unit 3.5 - Operating the Handloom	57
	Unit 3.6 - Woven Fabric Graphical Representation	60
4.	Achieving Quality in Handloom Weaving (TSC/ N 7307)	63
	Unit 4.1 - Greige Fabric Quality	65
	Unit 4.2 - Product Certification and Quality	70
	Unit 4.3 - Fabric Defects	71
	Unit 4.4 - Finishing and packing of fabric	80



Table of Contents

S.No	Modules and Units	Page No
5.	Maintain Work Area and Tools in Handloom Sector (TSC/ N 9005)	84
	Unit 5.1 - Cleaning the work station	86
	Unit 5.2 - Maintenance of Loom & Tools	88
	Unit 5.3 - Maintenance of the Loom	90
6.	Working in a team in Handloom Sector (TSC/ N 9006)	92
	Unit 6.1 - Interpersonal Skills and Communication	94
	Unit 6.2 - Skills	98
	Unit 6.3 - Cooperative Society and NGOs	101
7.	Health, Safety and Security at Work Place in Handloom Sector (TSC/ N 9007)	104
	Unit 7.1 - Safety at workplace	106
	Unit 7.2 - Basic Hygiene	110
	Unit 7.3 - Health	113
8.	Comply with work place requirements (TSC/ N 9008)	122
	Unit 8.1 - Managerial and Organizational Knowledge	124
	Unit 8.2 - Marketing and selling	130
	Unit 8.3 - Team Work and Cluster Organization	131
9.	Employability & Entrepreneurship Skills	133
	Unit 9.1 - Personal Strengths & Value Systems	137
	Unit 9.2 - Digital Literacy: A Recap	156
	Unit 9.3 - Money Matters	162
	Unit 9.4 - Preparing for Employment & Self Employment	173
	Unit 9.5 - Understanding Entrepreneurship	182
	Unit 9.6 - Preparing to be an Entrepreneur	204





Skill India
कौशल भारत-कुशल भारत



सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP



N S D C
National
Skill Development
Corporation

Transforming the skill landscape



1. Introduction

Unit 1.1 - Textile Industry and Handloom in India - An Overview

Unit 1.2 - Handloom Industry – History, Origin and Significance

Unit 1.3 - Basic Textile Terminology – Fabric Fiber and Yarn

Unit 1.4 - Job Role Description - Two Shaft Handloom Weaver



Key Learning Outcomes



At the end of this module, the participant will be able to:

1. Understand the importance and scope of Textile Sector in India
2. Understand the origin and use of different Fibers, Yarns and Fabrics
3. Understand the variety and versatile application of handloom textiles
4. Gain knowledge on nature of schemes and support that the Government extends to the industry
5. Understand the roles and responsibilities of Two Shaft Handloom Weaver

UNIT 1.1 Textile Industry and Handloom in India – An Overview

Unit Objectives

At the end of this module, the participant will understand:

1. The different parts of a loom and their functions
2. The machinery and equipment that are used for weaving
3. The different types of weaves and their properties

1.1.1. Textile Industry in India and Handloom Weaving

The textile industry of India accounts for 14% of the total Industrial production, contributes to nearly 30% of the total exports and is the second largest employment generator after agriculture. It is because of all these factors that it occupies a unique place in our country.

One of the earliest to come into existence in India, India's textile sector comprises four important segments-

- New textile mills
- Power looms
- Handlooms
- Ready Apparel and Made-ups

The process of operation of the loom, an ingenious wooden structure, by hand and with only man power is what gives meaning to the word Handloom

Brief Introduction of Textile Sector in India

Manufacturing of textiles is one of the oldest industries. A variety of textiles play many small and big roles in our everyday lives. It caters for the fundamental human need for clothing and for protection and fulfills basic demand for decoration. Other than this, textiles also have an assortment of other uses, like making packaging in the form of bags, baskets and pouches. In households, textiles form a substantial part of carpentry, upholstered furnishings, shades, towels, table accessories and covers, bedding and quilts, and even art pieces. In the workplace, industrial processes such as filtering, conveyor belts, etc use textiles. Other different uses include flags, handkerchiefs, cleaning rags, backpacks, tents, nets, transportation devices such as balloons, sails, parachutes, etc. It is also the second largest provider of employment in the country after agriculture. India being one of the world's largest producers of textiles and textile based products, this sector contributes to national economy not only in terms of creating and sustaining direct and indirect employment but also foreign exchange earnings. Abundant supply of raw materials - natural and manmade fibers and skilled workforce is what has helped India to become a major production hub.

The diversity of varieties and typologies is an important aspect of textile sector in India. While it has the traditional hand-spun and hand-woven sector at one end, it also has the capital intensive sophisticated mill sector at the other end of the spectrum.

It can be broadly classified into the organized mill sector and the decentralized sector.

Organized mill sector

Spinning mills that produce only yarn

Composite mills that produce yarn, and greige and finished fabrics

Decentralized sectors

Handloom sector

Powerloom sector

Hosiery sector

Wet processing sector

Garment manufacturing sector

Khadi

Carpet manufacturing

Handlooms - The Largest Cottage Industry

Handloom textiles are an integral craft product of India and constitute the largest cottage industry of the country.

Throughout the length and breadth of the country, millions of looms in villages and towns are engaged in manufacturing textiles of cotton, silk and other variety yarns. With such extent and reach, each cluster has its own way of weaving the warp and weft of the traditional beauty of India's own precious heritage.

Before the advent of imperialism and colonization, all fabrics (cotton, jute and silk) woven by hand. Later on, mechanical systems were used to create means for faster completion of spinning as well as weaving. The introduction of machines to the process of textile manufacturing allowed scope for due care to be given to intricate technicalities and thus the production quantity and quality of products improved manifold. It also allowed the artisans like the weavers, embroiders and hand-printers greater freedom to create new designs. During the British rule, the export business of cotton and silk also started which became a means for many Indians to showcase the talent of their expertise around the world.

With so many varieties of Handloom textiles from different states and their finesse, Indian Handloom textiles created a special place for India in domestic markets and abroad. This has added to the emergence of India as one of the most diverse and culturally rich countries.

The handloom weaving sector also plays a key role in the country's economy. It is among the largest economic activities that provide direct employment to more than 65 lakh people that are engaged in weaving and other allied activities. It contributes to about 19% of the total cloth produced in the country and also adds to the country's export earnings. With effective Government intervention in the form of financial assistance and the implementation of various developmental and welfare schemes, this sector has been able to fight competition from the power loom and mill sectors.

Handloom offers unmatched flexibility and is extremely versatile. This permits experimentation and allows scope for innovations. The strength of Handloom lies in its capacity to introduce innovative designs, the intricate details of which cannot be replicated by the Power loom sector. It is for these reasons that Handloom forms a part of the heritage of India, and for centuries it has exemplified the richness and diversity of our country and the brilliant artistry of the weavers.

Since its inception in the year 1976, the Office of the Development Commissioner for Handlooms has been instrumental in implementing various schemes for the promotion and development of the Handloom sector. It provides assistance to the Handloom weavers through its various programmes.

Some of the major programmes relate to

- Innovation and modernization of technologies
- Input support
- Marketing support
- Publicity
- Infrastructure support
- Welfare activities
- Composite growth
- Development of good quality global standard products
- New product development and research

These schemes that are implemented by the Office of Development Commissioner for Handlooms address the requirements of weavers that primarily constitute the disadvantaged social groups and occupational sections that comprise the bottom of the economic hierarchy. Rigorous planned efforts are being made through these schemes and programmes to enhance production, productivity, and efficiency of the Handloom sector to enhance the income and socio-economic status of the weavers by means of upgrading their skills and providing infrastructural support.

1.1.2. Importance of Handloom Industry

The Handloom industry possesses certain advantages over others such as the provision of job at home, the low requirements of capital and the adaptability to changes.

- Handloom weaving is majorly a family occupation and every member of the family is employed in it. Weaving is performed at the weavers house itself. The weavers act independently and attend to their family work. They have the freedom to work leisurely. They can choose their own working hours and there is no fixed number of hours during which they have necessarily to work. Depending on the need they can decide their work schedule and the number of hours they have to put in. This makes it a viable choice as occupation given that people at villages are also involved in other occupations like agriculture.
- When compared to the capital requirements of other industries, the capital requirement per employee in Handloom industry is very less. For instance, the capital requirement per employee in Handloom is less than Rs 5000, whereas it is Rs.11000 and Rs.45000 in n y, small and large scale mechanized industries respectively. Thus, the capital employment ratio is very low in the Handloom industry.
- Frequent changes in colour, borders, designs, textures etc., can be very easily made on Handloom products as Handlooms rely on short warps. These warps are locally prepared for them to facilitate such frequent variations. Such changes cannot be easily permissible in the power loom or mill sectors, whose warps go beyond 1000 yards at a time. Versatile process to create designs that are unique can be implemented with ease.
- In providing employment to the rural population, Handloom industry stands only next to agriculture. It provides direct employment to over 10 million people and indirect employment to about 1.5 million people.

1.1.3. The Handloom Sector and Government Support

Handloom sector is considered to be highly production and employment oriented. It also lends itself to entrepreneurship. In view of this, the government makes popular announcements in support of industries in this sector in their plan documents.

Government aligned agencies like the KVIC and MSME support the Handloom sector and also form a relevant market linkage for the weavers.

The various schemes of the office of the Development Commissioner for Handlooms are categorized as below-

- Production oriented schemes
- Market support schemes
- Infrastructural Development schemes
- Co-operative and Management training
- Banking related schemes

Ongoing Schemes and Programmes

For the integration of schemes for financial assistance provided to the Handloom weavers the Government of India has been proactive in rolling out new initiatives in addition to the other ongoing schemes, Deen Dayal Hathkargha Protsahan Yojana and set up a National Centre for Textile Design (NCTD).

Deen Dayal Hathkargha Protsahan Yojana

This scheme has been launched in April 2001. The scheme is specifically directed for the benefit of the handloom sectors and addresses all the parts of the industry.

For more details you may visit the following link: [http://www .indianyojana.com/vikas-yojana/deen-dayal-hathkargha-protsahan-yojna.html](http://www.indianyojana.com/vikas-yojana/deen-dayal-hathkargha-protsahan-yojna.html)

National Centre for Textile Design (NCTD)

The National Centre for Textile Design was commissioned in January 2001 to support the need for Design Development for both the contemporary and traditional designs required in the Handloom sector to keep up with the dynamic market needs.

For more details you may visit the following link: <http://designdiary .nic.in/about-us.html>

Enforcement of Handlooms Reservation Act

The Handlooms (Reservation of Articles for Production) Act, 1985 has been envisioned to preserve and protect the handloom industry from the power loom and textile mill segment which infringes heavily on the livelihood of the handloom weavers.

For more details you may visit the following link:

<http://handlooms.nic.in/writer/readdata/UploadFile/Act%201985.pdf>

http://handlooms.nic.in/User_Panel/UserView.aspx?TypeID=1211

Input Support

The handloom sector is primarily reliant on the organized mill sector for its major raw material supply of yarns. A large portion of this yarn is in the shape of hanks. To ensure a continuous supply of yarn to the handloom sector a certain % is obligatory on the part of mills to be supplied to the handloom sector as hanks.

National Handloom Development Corporation (NHDC)

NHDC is a government undertaking is the only authorised body to implement benefit and schemes for the Handloom sector.

For more details you may visit the following link: <http://www .nhdc.org.in/english/ERP-NHDC%20PR-1.pdf>

<http://www.nhdc.org.in/>

Credit Facility

The National Bank of Agricultural and Rural Development Corporations (Nabard) has been specifically set up to provide Financial schemes at concessional rates to the handloom sector in the form of working capital through various banks such as District Central Cooperative Banks (DCCB) and State Cooperative Banks (SCB).