

Qualification Pack



Warper - Direct Warping Machine

QP Code: TSC/Q2101

Version: 1.0

NSQF Level: 4

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TSC/Q2101: Warper - Direct Warping Machine

Brief Job Description

A Warper is a job-role in a weaving preparatory department. The responsibility of a Warper is to run the Warping Machine efficiently, carry out routine cleaning and maintenance activities to get maximum output with minimum defects giving due importance to safety. This job requires the individual to have thorough knowledge of process flow and material flow in a Weaving mill for fabric production and should know about the important functions and operations of Warping machine.

Personal Attributes

A Warper should have good eyesight, hand-eye coordination, motor skills and vision (including near vision, distance vision, colour vision, peripheral vision, depth perception and ability to change focus).

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TSC/N2101: Taking charge of shift and handing over shift to Warper -Direct Warping Machine](#)
2. [TSC/N2102: Operating a Direct Warping Machine](#)
3. [TSC/N2103: Piecing the broken yarn at Direct warping](#)
4. [TSC/N9001: Maintain work area, tools and machines](#)
5. [TSC/N9002: Working in a team](#)
6. [TSC/N9003: Maintain health, safety and security at workplace](#)
7. [TSC/N9004: Comply with industry and organizational requirement](#)

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Weaving
Occupation	Weaving Preparatory
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8152.17

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Minimum Educational Qualification & Experience	8th Class (Preferably)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Training in weaving preparatory department (Suggested but not mandatory)
Minimum Job Entry Age	18 Years
Last Reviewed On	21/01/2015
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	05/08/2015
Version	1.0

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TSC/N2101: Taking charge of shift and handing over shift to Warper - Direct Warping Machine

Description

This unit is about taking charge of shift from previous shift Warper-Direct Warping Machine and relieving the responsibilities to the next shift Warper-Direct Warping Machine

Scope

This unit/task covers the following:

- Taking charge of shift from Warper-Direct Warping Machine
- Handing over shift to Warper-Direct Warping Machine

Elements and Performance Criteria

Taking charge of shift from Warper-Direct Warping Machine

To be competent, the user/individual on the job must be able to:

1. come at least 10 - 15 minutes earlier to the work spot
2. Check for the necessary items like chalk, pen, knife etc.
3. meet the previous shift warper, discuss with him/ her regarding the issues faced by him/ her with respect to the quality, production, spare, safety or any other specific instruction etc.
4. check the condition of the running beams, machine, performance of the yarn running on machine
5. check whether all the stop motions are in good working condition
6. take job cards for the next programs, from your superior
7. check availability of the cones/ cheeses & empty warping beams required for the next programs
8. check cleanliness of the machines & other work areas.
9. check whether any spare/raw material/ tool or any other material is thrown under the machines or in the other work areas.
10. question the previous shift warper for any deviation in the above and bring the same to the knowledge of his/ her shift superior as well as that of the previous shift
11. take over the shift from the outgoing warper in a proper manner
1. • come at least 10
• 15 minutes earlier to the work spot

Handing over the Shift to Warper Direct Warping Machine

To be competent, the user/individual on the job must be able to:

12. hand over the shift to the incoming warper in a proper manner & get clearance from the incoming counterpart before leaving the work spot.
13. report to his/ her shift superiors as well as that of the incoming shift, in case his/ her counterpart doesn't report for work. in such cases, the shift has to be properly handed over to the incoming shift superior & get clearance from him/ her before leaving the work spot.

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14. report to his/ her shift superior about the quality / production / safety issues or any other issue faced in his/ her shift and should leave the department only after getting concurrence for the same from his/ her superiors

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a Weaving mill
- KU2.** safe working practices to be adopted in a weaving mill
- KU3.** potential hazards associated with the machines and the safety precautions must be taken
- KU4.** quality systems and other processes practiced in weaving/ textile mill
- KU5.** contact Person in case of queries on procedure or products and for resolving issues related to defective machines, tools, materials & equipment
- KU6.** details of the various job roles & responsibilities.
- KU7.** documentation and reporting formats.
- KU8.** work targets & review with superiors.
- KU9.** protocol and format for reporting work related risks/ problems
- KU10.** method of obtaining /giving feed back with respect to performance
- KU11.** Importance of Team work & harmonious working relationships.
- KU12.** Process for offering /obtaining work related assistance.
- KU13.** Responsibilities under health, safety and environmental legislation.
- KU14.** guidelines for storage & disposal of waste materials.
- KU15.** Minimum quality requirements of the product with respect to permissible/non-permissible defects
- KU16.** Beam quality particulars such as Count, no. of Ends etc.
- KU17.** Yarns from natural fibers - Cotton, Silk, Wool
- KU18.** Yarns from Manmade Fibers - Polyester, Nylon, Viscose
- KU19.** Blended yarns - Polyester Cotton, Polyester Viscose
- KU20.** Modern Direct Warping Machines
- KU21.** Sectional Warping Machines
- KU22.** Tappet loom/ Cam Loom/ Crank Loom, Dobby Loom, Jacquard Loom
- KU23.** Shade Variation within the yarn lot
- KU24.** Count Mix- Up
- KU25.** Color contamination in the yarn
- KU26.** Material Contamination
- KU27.** Uneven Winding in yarn cones / cheese
- KU28.** Ends Migration
- KU29.** Improper Mending Of Broken Ends
- KU30.** Improper Beam Ends
- KU31.** Tension variation in warping Beams
- KU32.** Oiled Warp

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- KU33.** Stained Warp
- KU34.** Ensure the safety mechanisms of the machines are in good working order.
- KU35.** ensure the stop motions & other machine control is in good working order.
- KU36.** Ensure that the indication lamps are in working order.
- KU37.** knowledge of functional operations of the machines

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** plan and manage work routine based on instructions from supervisor
- GS3.** comprehend written instructions
- GS4.** communicate with supervisor appropriately
- GS5.** talk to others to convey information effectively
- GS6.** apply problem-solving approaches in different situations
- GS7.** refer anomalies to the supervisor
- GS8.** seek clarification on problems from others
- GS9.** participate in the various programs/ meetings that will be conducted by the Superiors
- GS10.** put forth the suggestions in the interest of the Company
- GS11.** participate in the Quality Circles formed by the Superiors
- GS12.** extend voluntary supports and adapt to the various procedures that are adopted by the Company with respect to compliances for the different certifications like ISO 9001, ISO 14001, SA 8001 GOTS Certification Fair Trade etc.
- GS13.** apply good attention to detail
- GS14.** check your work is complete and free from errors
- GS15.** find Warping Creel Capacity
- GS16.** produce warping beams free from Shade variation & Count Mix-Up.

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from Warper-Direct Warping Machine</i>	28	50	-	16
1. come at least 10 - 15 minutes earlier to the work spot	2	6	-	2
2. Check for the necessary items like chalk, pen, knife etc.	2	5	-	2
3. meet the previous shift warper, discuss with him/ her regarding the issues faced by him/ her with respect to the quality, production, spare, safety or any other specific instruction etc.	3	3	-	3
4. check the condition of the running beams, machine, performance of the yarn running on machine	2	5	-	2
5. check whether all the stop motions are in good working condition	3	3	-	3
6. take job cards for the next programs, from your superior	3	4	-	1
7. check availability of the cones/ cheeses & empty warping beams required for the next programs .	3	3	-	2
8. check cleanliness of the machines & other work areas.	3	4	-	1
9. check whether any spare/raw material/ tool or any other material is thrown under the machines or in the other work areas.	3	5	-	-
10. question the previous shift warper for any deviation in the above and bring the same to the knowledge of his/ her shift superior as well as that of the previous shift	2	6	-	-
11. take over the shift from the outgoing warper in a proper manner	2	6	-	-
1. • come at least 10 • 15 minutes earlier to the work spot	2	6	-	2

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Handing over the Shift to Warper Direct Warping Machine</i>	2	10	-	4
12. hand over the shift to the incoming warper in a proper manner & get clearance from the incoming counterpart before leaving the work spot.	-	5	-	3
13. report to his/ her shift superiors as well as that of the incoming shift, in case his/ her counterpart doesn't report for work. in such cases, the shift has to be properly handed over to the incoming shift superior & get clearance from him/ her before leaving the work spot.	1	3	-	1
14. report to his/ her shift superior about the quality / production / safety issues or any other issue faced in his/ her shift and should leave the department only after getting concurrence for the same from his/ her superiors	1	2	-	-
NOS Total	30	60	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N2101
NOS Name	Taking charge of shift and handing over shift to Warper -Direct Warping Machine
Sector	Textile
Sub-Sector	Weaving
Occupation	Weaving Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/01/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N2102: Operating a Direct Warping Machine

Description

This unit provides performance criteria, knowledge & understanding and skills & abilities required to run a warping machine, by attending to warp breakages, so as to get maximum output & minimum defects

Scope

This unit/task covers the following:

- Wrapper's Knot
- Attending to Warp Break
- Creeling of cones/cheeses in the warping creel
- Running of direct warping machine
- Doffing of warped beams

Elements and Performance Criteria

Warper's Knot

To be competent, the user/individual on the job must be able to:

1. make tiny & firm warper's knots

Attending to Warp Break

To be competent, the user/individual on the job must be able to:

2. takeout the broken end in the warping beam.
3. knot the broken end with the broken end in the creel, using tiny & firm warper knot by hand or by the knotting machine provided.
4. start the machine & run at slow speed for some time before increasing the machine speed
5. record the warp breakages details in the yarn performance book

Creeling Of Cones/ Cheeses in the Warping Creel

To be competent, the user/individual on the job must be able to:

6. remove the run out cones/ cheeses of the previous program.
7. collect the removed cones/cheeses in trolleys/ bags provided for it
8. pack the collected cones/ cheeses as per the instructions given
9. write the following details on the packed bags: a) Count details, b) Mill Name, c) Warping Set No., d) No. Of Cones, e) Gross wt. in kgs, f) Net Wt. in Kgs
10. clean the warping creel area & the warping machine thoroughly
11. bring the yarn bags required for the next program and keep the same in middle of the warping creel
12. bring the empty trolleys provided to store empty polythene bags cone inserts and keep the same in the middle of the warping creel
13. remove the polythene bags, cone inserts etc.& store the same in the respective trolleys provided
14. creel the cones/ cheeses in the creel stand

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15. remove the trolleys of empty polythene covers & cone inserts from the warping area.

Running Of Warping Machine

To be competent, the user/individual on the job must be able to:

16. check the stop motions & to ensure they are in on position, before starting the machine

17. check the counter meter & set it to zero

18. mount the empty warping beam in the machine

19. set the beam meters in the counter meter

20. record the beam no, no. of ends, beam set meters etc. in the job card before starting the machine

21. switch on the warping drum so as to ensure no deviation between the beam set meters & the actual beam meters

22. ensure that the ends in both the edges are coming properly without any overlapping. If so, it has to be corrected using warping comb.

23. there should not be any up & down or wavy portion in the warping beam, particularly in the edges.

Doffing Of Warped Beams

To be competent, the user/individual on the job must be able to:

24. stop the machine & doff the warped beam as soon as the set length of yarn is achieved

25. note down the following details on the warped beams using chalk, a. Yarn Count, b. Warp Set No., c. Warp Beam No., d. No. of Ends, e. Beam Meters

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. SOP (Standard Operating Procedures) and regulations in a weaving unit

KU2. safe working practices to be adopted in weaving unit

KU3. quality systems and other processes practiced in the weaving unit

KU4. reporting to the supervisor or higher authority in case of emergency

KU5. color coding adopted for different counts in the weaving unit

KU6. understanding the importance of: Types of fibres, Types of yarn, Yarn count

KU7. process flow in a weaving unit

KU8. material flow in a weaving unit

KU9. functions of different parts of warping machine

KU10. importance of creeling

KU11. importance of colour coding followed for different counts in weaving unit

KU12. various tools and equipments used

KU13. knowledge of waste collection system & equipment used

KU14. importance of material handling and types of material handling equipments used

KU15. functions and methodology for operating different material handling equipments

KU16. understanding the functions of different signal lamps

KU17. guidelines for operating the warping machine

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KU18. safety procedures to be followed in a warping machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** comprehend written instructions
- GS3.** communicate with supervisor appropriately
- GS4.** talk to others to convey information effectively
- GS5.** apply problem-solving approaches in different situations
- GS6.** refer anomalies to the supervisor
- GS7.** seek clarification on problems from others
- GS8.** apply good attention to detail
- GS9.** check your work is complete and free from errors
- GS10.** standard operating procedures to be followed for creeling the yarn
- GS11.** patrol around warping machine and identify yarn breakage or cone/ cheese exhaust
- GS12.** transport the yarn / cheese trolley
- GS13.** any damaged yarn cone / cheese noticed should be cleaned and reused
- GS14.** standard piecing/ knotting technique adopted for piecing the broken warp
- GS15.** check the quality of piecing
- GS16.** procedure for operating different material handling tools and equipments
- GS17.** maintain neatness at work place

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Warper's Knot</i>	4	5	-	-
1. make tiny & firm warper's knots	4	5	-	-
<i>Attending to Warp Break</i>	14	17	-	4
2. takeout the broken end in the warping beam.	4	5	-	-
3. knot the broken end with the broken end in the creel, using tiny & firm warper knot by hand or by the knotting machine provided.	3	5	-	1
4. start the machine & run at slow speed for some time before increasing the machine speed	3	5	-	1
5. record the warp breakages details in the yarn performance book	4	2	-	2
<i>Creeling Of Cones/ Cheeses in the Warping Creel</i>	23	57	-	6
6. remove the run out cones/ cheeses of the previous program.	5	1	-	2
7. collect the removed cones/cheeses in trolleys/ bags provided for it	5	1	-	2
8. pack the collected cones/ cheeses as per the instructions given	5	1	-	2
9. write the following details on the packed bags: a) Count details, b) Mill Name, c) Warping Set No., d) No. Of Cones, e) Gross wt. in kgs, f) Net Wt. in Kgs	3	6	-	-
10. clean the warping creel area & the warping machine thoroughly	2	6	-	-
11. bring the yarn bags required for the next program and keep the same in middle of the warping creel	-	9	-	-
12. bring the empty trolleys provided to store empty polythene bags cone inserts and keep the same in the middle of the warping creel	-	9	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
13. remove the polythene bags, cone inserts etc.& store the same in the respective trolleys provided	-	9	-	-
14. creel the cones/ cheeses in the creel stand	3	6	-	-
15. remove the trolleys of empty polythene covers & cone inserts from the warping area.	-	9	-	-
<i>Running Of Warping Machine</i>	21	35	-	16
16. check the stop motions & to ensure they are in on position, before starting the machine	2	5	-	2
17. check the counter meter& set it to zero	2	5	-	2
18. mount the empty warping beam in the machine	2	5	-	2
19. set the beam meters in the counter meter	2	5	-	2
20. record the beam no, no. of ends, beam set meters etc. in the job card before starting the machine	3	4	-	2
21. switch on the warping drum so as to ensure no deviation between the beam set meters& the actual beam meters	3	4	-	2
22. ensure that the ends in both the edges are coming properly without any overlapping. If so, it has to be corrected using warping comb.	3	4	-	2
23. there should not be any up & downor wavy portion in the warping beam, particularly in the edges.	4	3	-	2
<i>Doffing Of Warped Beams</i>	8	6	-	4
24. stop the machine & doff the warped beam as soon as the set length of yarn is achieved	4	3	-	2
25. note down the following details on the warped beams using chalk, a. Yarn Count, b. Warp Set No., c. Warp Beam No., d. No. of Ends, e. Beam Meters	4	3	-	2
NOS Total	70	120	-	30

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N2102
NOS Name	Operating a Direct Warping Machine
Sector	Textile
Sub-Sector	Weaving
Occupation	Weaving Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/01/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N2103: Piecing the broken yarn at Direct warping

Description

This unit is about carrying out procedure for piecing the yarn in the event of a yarn breakage

Scope

This unit/task covers the following:

- identifying yarn breakage
- Piecing the broken yarn
- material handling
- check the quality of pieced yarn

Elements and Performance Criteria

Identifying yarn breakage

To be competent, the user/individual on the job must be able to:

1. patrol around the Warping machine & identify the yarn breakage.
2. ensure minimum time is taken for attending the yarn breakages
3. check the yarn break at creel or at the warping head
4. adjust the yarn tension or cone angle to reduce yarn breakage
5. check the quality of cone winding
6. verify the quality of piecing done in the yarn
7. attend to the yarn breakage as and when they occur.

Piecing the broken yarn

To be competent, the user/individual on the job must be able to:

8. take yarn from cone to start piecing
9. ensure proper material handling
10. piece the yarn between creel and warping head by following standard piecing techniques
11. ensure minimum time is taken for piecing the yarn
12. ensure the yarn should be pieced with minimum overlapping

Material handling

To be competent, the user/individual on the job must be able to:

13. put the yarn waste in the bags or pockets of coat / apron while attending the yarn breakages.

Creeling Of Cones/ Cheeses in the Warping Creel

To be competent, the user/individual on the job must be able to:

14. ensure proper material handling of yarn and cones

Check the quality of pieced yarn

To be competent, the user/individual on the job must be able to:

15. ensure the quality of piecing is as per standard
16. ensure the tension of the pieced yarn is proper

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17. ensure the piecing is perfectly done
18. verify proper material passage from creel till the yarn wound
19. remove the yarn waste and deposit in the respective waste collection bags
20. ensure proper functioning of the machine

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** SOP (Standard Operating Procedures) and regulations in a weaving unit
- KU2.** safe working practices to be adopted in weaving unit
- KU3.** quality systems and other processes practiced in the weaving unit
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the weaving unit
- KU6.** understanding the importance of different types of fibers, yarn, and yarn count.
- KU7.** understand the types of yarn defects and reason for yarn breakage
- KU8.** Process flow and material flow in a weaving unit
- KU9.** functions of different parts of a warping machine
- KU10.** importance of piecing the yarn
- KU11.** tools and equipment used for piecing
- KU12.** knowledge of waste collection system & material handling equipment used
- KU13.** functions of different signal lamps and control buttons
- KU14.** guidelines for operating the warping machine
- KU15.** safety procedures to be followed in a warping machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Write clear & short sentences
- GS2.** Comprehend written instructions.
- GS3.** communicate with supervisor appropriately
- GS4.** talk to others to convey information effectively
- GS5.** patrolling procedure to attend the end breaks without delay
- GS6.** procedure for finding the broken yarn
- GS7.** standard piecing technique for piecing the broken yarn
- GS8.** check the quality of piecing
- GS9.** maintain neatness at work place

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identifying yarn breakage</i>	25	35	-	8
1. patrol around the Warping machine & identify the yarn breakage.	4	5	-	1
2. ensure minimum time is taken for attending the yarn breakages	4	6	-	1
3. check the yarn break at creel or at the warping head	3	4	-	2
4. adjust the yarn tension or cone angle to reduce yarn breakage	3	4	-	2
5. check the quality of cone winding	4	6	-	-
6. verify the quality of piecing done in the yarn	3	4	-	2
7. attend to the yarn breakage as and when they occur.	4	6	-	-
<i>Piecing the broken yarn</i>	12	26	-	4
8. take yarn from cone to start piecing	3	7	-	-
9. ensure proper material handling	3	6	-	-
10. piece the yarn between creel and warping head by following standard piecing techniques	2	6	-	-
11. ensure minimum time is taken for piecing the yarn	2	4	-	2
12. ensure the yarn should be pieced with minimum overlapping	2	3	-	2
<i>Material handling</i>	2	3	-	2
13. put the yarn waste in the bags or pockets of coat / apron while attending the yarn breakages.	2	3	-	2
<i>Creeling Of Cones/ Cheeses in the Warping Creel</i>	1	8	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
14. ensure proper material handling of yarn and cones	1	8	-	-
<i>Check the quality of pieced yarn</i>	16	28	-	-
15. ensure the quality of piecing is as per standard	1	7	-	-
16. ensure the tension of the pieced yarn is proper	2	5	-	-
17. ensure the piecing is perfectly done	3	4	-	-
18. verify proper material passage from creel till the yarn wound	4	4	-	-
19. remove the yarn waste and deposit in the respective waste collection bags	3	4	-	-
20. ensure proper functioning of the machine	3	4	-	-
NOS Total	56	100	-	14

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N2103
NOS Name	Piecing the broken yarn at Direct warping
Sector	Textile
Sub-Sector	Weaving
Occupation	Weaving Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/01/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

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TSC/N9001: Maintain work area, tools and machines

Description

This unit provides performance criteria, knowledge & understanding and skills & abilities required to organise/ maintain work areas and activities to ensure tools and machines are maintained as per norms

Scope

This unit/task covers the following:

- Maintaining the work area, tools and machines

Elements and Performance Criteria

Maintaining the work area, tools and machines

To be competent, the user/individual on the job must be able to:

1. handle materials, machinery, equipment and tools with care and use them in the correct way
2. use correct lifting and handling procedures
3. use materials to minimize waste
4. maintain a clean and hazard free working area
5. maintain tools and equipment
6. carry out running maintenance within agreed schedules
7. carry out maintenance and/or cleaning within ones responsibility
8. report unsafe equipment and other dangerous occurrences
9. ensure that the correct machine guards are in place
10. work in a comfortable position with the correct posture
11. use cleaning equipment and methods appropriate for the work to be carried out
12. dispose of waste safely in the designated location
13. store cleaning equipment safely after use
14. carry out cleaning according to schedules and limits of responsibility

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** personal hygiene and duty of care
- KU2.** safe working practices and organisational standard operating procedures
- KU3.** limits of your own responsibility
- KU4.** ways of resolving problems within the work area
- KU5.** the production process and the specific work activities that relate to the whole process
- KU6.** the importance of effective communication with supervisors
- KU7.** the lines of communication, authority and reporting procedures

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- KU8.** the organisation's rules, codes and guidelines (including timekeeping)
- KU9.** the company's quality standards
- KU10.** the importance of complying with written instructions
- KU11.** equipment operating procedures / supervisor's instructions
- KU12.** work instructions and specifications and interpret them accurately
- KU13.** relation between work role and the overall manufacturing process
- KU14.** hazards likely to be encountered when conducting routine maintenance
- KU15.** the importance of taking action when problems are identified
- KU16.** different ways of minimising waste
- KU17.** the importance of running maintenance and regular cleaning
- KU18.** effects of contamination on products i.e. machine oil, dirt, foreign materials
- KU19.** common faults with equipment and the method to rectify
- KU20.** maintenance procedures
- KU21.** different types of cleaning equipment and substances and their use
- KU22.** safe working practices for cleaning and the method of carrying them out

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** comprehend written instructions
- GS2.** read any application sent by other colleagues
- GS3.** Communicate effectively in local language
- GS4.** communicate with supervisor appropriately
- GS5.** talk to others to convey information effectively
- GS6.** identify the real reason of problem faced
- GS7.** apply problem-solving approaches in different situations
- GS8.** refer anomalies to the supervisor
- GS9.** seek clarification on problems from others
- GS10.** apply good attention to detail
- GS11.** check your work is complete and free from errors
- GS12.** make sure every kind of communication is error free
- GS13.** communicate effectively
- GS14.** apply leadership skills wherever required
- GS15.** take initiative at the right place
- GS16.** understand the requirement to be creative

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintaining the work area, tools and machines</i>	17	20	-	13
1. handle materials, machinery, equipment and tools with care and use them in the correct way	2	2	-	1
2. use correct lifting and handling procedures	1	2	-	1
3. use materials to minimize waste	2	1	-	1
4. maintain a clean and hazard free working area	1	1	-	1
5. maintain tools and equipment	2	1	-	1
6. carry out running maintenance within agreed schedules	1	2	-	1
7. carry out maintenance and/or cleaning within ones responsibility	1	2	-	1
8. report unsafe equipment and other dangerous occurrences	1	2	-	-
9. ensure that the correct machine guards are in place	1	1	-	1
10. work in a comfortable position with the correct posture	1	1	-	1
11. use cleaning equipment and methods appropriate for the work to be carried out	1	1	-	1
12. dispose of waste safely in the designated location	1	2	-	1
13. store cleaning equipment safely after use	1	1	-	1
14. carry out cleaning according to schedules and limits of responsibility	1	1	-	1
NOS Total	17	20	-	13

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9001
NOS Name	Maintain work area, tools and machines
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Qualification Pack

TSC/N9002: Working in a team

Description

This unit is about working as a team member in the textile industry

Scope

This unit/task covers the following:

- commitment and trust
- communication
- adaptability
- creative freedom

Elements and Performance Criteria

Commitment and trust

To be competent, the user/individual on the job must be able to:

1. be accountable to the own role in whole process
2. perform all roles with full responsibility
3. be effective and efficient at workplace

Communication

To be competent, the user/individual on the job must be able to:

4. properly communicate about company policies
5. report all problems faced during the process
6. talk politely with other team members and colleagues
7. submit daily report of own performance

Adaptability

To be competent, the user/individual on the job must be able to:

8. adjust in different work situations
9. give due importance to other's point of view
10. avoid conflicting situations

Creative freedom

To be competent, the user/individual on the job must be able to:

11. develop new ideas for work procedures
12. improve upon the existing techniques to increase process efficiency

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
KU2. procedure followed to get the final output in the mill

Qualification Pack

- KU3.** safe working practices to be adopted in textile mill
- KU4.** reporting to the supervisor or higher authority about any grievances faced
- KU5.** the importance of the previous and next step of the process
- KU6.** process flow in a textile mill and the concerned workers
- KU7.** material flow in a textile mill and the required person
- KU8.** functions of different parts of the machine
- KU9.** tools and equipments used
- KU10.** guidelines for operating the machine
- KU11.** safety procedures to be followed in the machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** write daily work report
- GS3.** write grievance complaint application
- GS4.** comprehend written instructions
- GS5.** read any application sent by other colleagues
- GS6.** communicate with supervisor appropriately
- GS7.** talk to co-workers to convey information effectively
- GS8.** identify the real reason of problem faced
- GS9.** be able to find the most effective solution to the problems faced
- GS10.** apply good attention to detail
- GS11.** ensure every kind of communication is error free
- GS12.** communicate effectively
- GS13.** apply leadership skills wherever required
- GS14.** take initiative at the right place
- GS15.** understand the requirement to be creative

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Commitment and trust</i>	5	4	-	2
1. be accountable to the own role in whole process	2	1	-	1
2. perform all roles with full responsibility	2	1	-	1
3. be effective and efficient at workplace	1	2	-	-
<i>Communication</i>	6	7	-	4
4. properly communicate about company policies	1	2	-	1
5. report all problems faced during the process	1	2	-	1
6. talk politely with other team members and colleagues	2	1	-	1
7. submit daily report of own performance	2	2	-	1
<i>Adaptability</i>	5	4	-	3
8. adjust in different work situations	1	1	-	1
9. give due importance to other's point of view	2	1	-	1
10. avoid conflicting situations	2	2	-	1
<i>Creative freedom</i>	3	5	-	2
11. develop new ideas for work procedures	1	3	-	1
12. improve upon the existing techniques to increase process efficiency	2	2	-	1
NOS Total	19	20	-	11

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9002
NOS Name	Working in a team
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Qualification Pack

TSC/N9003: Maintain health, safety and security at workplace

Description

This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others.

Scope

This unit/task covers the following:

- comply with health, safety and security requirements at work
- Recognizing the hazards
- Planning the safety techniques
- Implementing the programs

Elements and Performance Criteria

Comply with health, Safety and security requirements at work

To be competent, the user/individual on the job must be able to:

1. comply with health and safety related instructions applicable to the workplace
2. use and maintain personal protective equipment such as ear plug, nose mask, head cap etc., as per protocol
3. carry out own activities in line with approved guidelines and procedures
4. maintain a healthy lifestyle and guard against dependency on intoxicants
5. follow environment management system related procedures
6. identify and correct (if possible) malfunctions in machinery and equipment
7. report any service malfunctions that cannot be rectified
8. store materials and equipment in line with organisational requirements
9. safely handle and remove waste
10. minimize health and safety risks to self and others due to own actions
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks
12. monitor the workplace and work processes for potential risks and threat
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
14. report hazards and potential risks/ threats to supervisors or other authorized personnel
15. participate in mock drills/ evacuation procedures organized at the workplace
16. undertake first aid, fire-fighting and emergency response training, if asked to do so
17. take action based on instructions in the event of fire, emergencies or accidents
18. follow organisation procedures for shutdown and evacuation when required

Recognizing the hazards

To be competent, the user/individual on the job must be able to:

Qualification Pack

19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry
20. recognise other possible security issues existing in the workplace

Planning the safety techniques Implementing the programs

To be competent, the user/individual on the job must be able to:

21. recognise different measures to curb the hazards
22. communicate the safety plan to everyone
23. attach disciplinary rules with the implementation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2.** safe working practices to be adopted in textile mill
- KU3.** quality systems and other processes practiced in the textile mill
- KU4.** health and safety related practices applicable at the workplace
- KU5.** potential hazards, risks and threats based on nature of operations
- KU6.** organizational procedures for safe handling of equipment and machine operations
- KU7.** potential risks due to own actions and methods to minimize these
- KU8.** environmental management system related procedures at the workplace
- KU9.** layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points
- KU10.** potential accidents and emergencies and response to these scenarios
- KU11.** reporting protocol and documentation required
- KU12.** details of personnel trained in first aid, fire-fighting and emergency response
- KU13.** actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
- KU14.** occupational health and safety risks and methods
- KU15.** personal protective equipment and method of use
- KU16.** identification, handling and storage of hazardous substances
- KU17.** proper disposal system for waste and by-products
- KU18.** signage related to health and safety and their meaning
- KU19.** importance of sound health, hygiene and good habits
- KU20.** ill-effects of alcohol, tobacco and drugs

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** read and understand the company instructions

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- GS3.** read and understand work instructions
- GS4.** read and understand the safety guidelines
- GS5.** listen to others attentively
- GS6.** respond to emergencies, accidents or fire at the workplace
- GS7.** evacuate the premises and help others in need while doing so
- GS8.** the value of physical fitness, personal hygiene and good habits
- GS9.** talk with others politely
- GS10.** identify correct safety measure for particular hazard
- GS11.** make required safety plans as and when required
- GS12.** raise alarm in case of emergency
- GS13.** know the use of correct safety measure whenever required
- GS14.** be attentive to details
- GS15.** be careful to avoid occurrence of hazards
- GS16.** maintenance of neatness at work
- GS17.** procedure for reporting unwanted behavior

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Comply with health, Safety and security requirements at work</i>	27	35	-	23
1. comply with health and safety related instructions applicable to the workplace	2	2	-	2
2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol	2	2	-	2
3. carry out own activities in line with approved guidelines and procedures	2	2	-	2
4. maintain a healthy lifestyle and guard against dependency on intoxicants	2	2	-	2
5. follow environment management system related procedures	2	2	-	2
6. identify and correct (if possible) malfunctions in machinery and equipment	2	2	-	1
7. report any service malfunctions that cannot be rectified	2	2	-	1
8. store materials and equipment in line with organisational requirements	2	2	-	1
9. safely handle and remove waste	2	2	-	1
10. minimize health and safety risks to self and others due to own actions	1	2	-	1
11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks	1	2	-	2
12. monitor the workplace and work processes for potential risks and threat	1	2	-	1
13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	1	2	-	1
14. report hazards and potential risks/ threats to supervisors or other authorized personnel	1	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. participate in mock drills/ evacuation procedures organized at the workplace	1	2	-	-
16. undertake first aid, fire-fighting and emergency response training, if asked to do so	1	2	-	1
17. take action based on instructions in the event of fire, emergencies or accidents	1	2	-	1
18. follow organisation procedures for shutdown and evacuation when required	1	1	-	1
<i>Recognizing the hazards</i>	2	2	-	2
19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	1	1	-	1
20. recognise other possible security issues existing in the workplace	1	1	-	1
<i>Planning the safety techniques Implementing the programs</i>	3	3	-	3
21. recognise different measures to curb the hazards	1	1	-	1
22. communicate the safety plan to everyone	1	1	-	1
23. attach disciplinary rules with the implementation	1	1	-	1
NOS Total	32	40	-	28

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9003
NOS Name	Maintain health, safety and security at workplace
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Qualification Pack

TSC/N9004: Comply with industry and organizational requirement

Description

This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry

Scope

This unit/task covers the following:

- self development
- team work
- organizational standards
- industry standards

Elements and Performance Criteria

Self development

To be competent, the user/individual on the job must be able to:

1. perform own duties effectively
2. take responsibility for own actions
3. be accountable towards the job role and assigned duties
4. take initiative and innovate the existing methods
5. focus on self-learning and improvement

Team work

To be competent, the user/individual on the job must be able to:

6. co-ordinate with all the team members and colleagues
7. communicate politely
8. avoid conflicts and miscommunication

Organisational standards

To be competent, the user/individual on the job must be able to:

9. know the organisational standards
10. implement them in your performance
11. motivate others to follow them

Industry standards

To be competent, the user/individual on the job must be able to:

12. monitor the workplace and work processes for potential risks and threat
13. align them with organisation standards

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

Qualification Pack

- KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2.** reporting to the supervisor or higher authority
- KU3.** knowledge of organisational standards
- KU4.** knowledge of industry standards
- KU5.** process and material flow in a textile mill
- KU6.** importance of complying with the standards
- KU7.** guidelines for cleaning the various parts of machine

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write clear and short sentences
- GS2.** read the given instructions
- GS3.** comprehend written instructions
- GS4.** talk effectively with others
- GS5.** put forward your point
- GS6.** listen to others
- GS7.** Organizational requirements
- GS8.** your responsibilities at the workplace
- GS9.** procedure to comply with the industry standards

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Self development</i>	5	9	-	7
1. perform own duties effectively	1	2	-	2
2. take responsibility for own actions	1	2	-	2
3. be accountable towards the job role and assigned duties	1	2	-	1
4. take initiative and innovate the existing methods	1	1	-	1
5. focus on self-learning and improvement	1	2	-	1
<i>Team work</i>	3	5	-	4
6. co-ordinate with all the team members and colleagues	1	2	-	1
7. communicate politely	1	1	-	2
8. avoid conflicts and miscommunication	1	2	-	1
<i>Organisational standards</i>	3	4	-	3
9. know the organisational standards	1	1	-	1
10. implement them in your performance	1	2	-	1
11. motivate others to follow them	1	1	-	1
<i>Industry standards</i>	4	2	-	1
12. monitor the workplace and work processes for potential risks and threat	2	1	-	-
13. align them with organisation standards	2	1	-	1
NOS Total	15	20	-	15

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9004
NOS Name	Comply with industry and organizational requirement
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2016
NSQC Clearance Date	05/08/2015

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N2101.Taking charge of shift and handing over shift to Warper -Direct Warping Machine	30	60	-	20	110	15
TSC/N2102.Operating a Direct Warping Machine	70	120	-	30	220	29
TSC/N2103.Piecing the broken yarn at Direct warping	56	100	-	14	170	22

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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N9001.Maintain work area, tools and machines	17	20	-	13	50	7
TSC/N9002.Working in a team	19	20	-	11	50	7
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	13
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	7
Total	239	380	-	131	750	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

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Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.