



Speed Frame Operator Tenter & Doffer

QP Code: TSC/Q0106

Version: 1.0

NSQF Level: 4

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TSC/Q0106: Speed Frame Operator Tenter & Doffer

Brief Job Description

A speed frame operator is responsible for carrying out tenting and doffing activities in a speed frame machine. A speed frame operator should be able to piece the sliver, piece the roving and carry out routine cleaning and preventive maintenance activities, doff the roving bobbins and ensure that quality roving bobbin is produced in speed frame machine. This job requires the individual to have thorough knowledge of process flow and material flow in a spinning mill for yarn production and should know about the important functions and operations of a speed frame machine.

Personal Attributes

A speed frame operator should have good eyesight, hand eye-leg coordination, motor skills and vision. He/she should also have good interpersonal skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TSC/N0116: Taking charge of shift and handing over shift to Speed Frame Operator-Tenter and Doffer](#)
2. [TSC/N0117: Piecing the broken sliver at Speed Frame](#)
3. [TSC/N0118: Piecing the broken roving at Speed Frame](#)
4. [TSC/N0119: Preparing for doffing at Speed Frame](#)
5. [TSC/N0120: Carrying out doffing activity at Speed frame](#)
6. [TSC/N0121: Tenting responsibilities at Speed Frame](#)
7. [TSC/N0122: Carry out additional tenting responsibilities effectively](#)
8. [TSC/N9001: Maintain work area, tools and machines](#)
9. [TSC/N9002: Working in a team](#)
10. [TSC/N9003: Maintain health, safety and security at workplace](#)
11. [TSC/N9004: Comply with industry and organizational requirement](#)

Qualification Pack (QP) Parameters

Sector	Textile
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Qualification Pack

Sub-Sector	Spinning
Occupation	Spinning Preparatory
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8152.02
Minimum Educational Qualification & Experience	5th Class (Preferably) with 1-2 Years of experience in a textile mill (Experience is preferred but not mandatory)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	25/02/2015
Next Review Date	31/03/2021
Deactivation Date	31/03/2021
NSQC Approval Date	05/08/2015
Version	1.0

TSC/N0116: Taking charge of shift and handing over shift to Speed Frame Operator-Tenter and Doffer

Description

This unit is about taking charge of shift from previous shift Speed Frame Operator Tenter and Doffer and relieving the responsibilities to the next shift Speed Frame Operator-Tenter and Doffer

Scope

This unit/task covers the following:

- Taking charge of shift from Speed Frame Operator-Tenter and Doffer
- Handing over shift to Speed Frame Operator-Tenter and Doffer

Elements and Performance Criteria

Taking charge of shift from Speed Frame Operator-Tenter and Doffer

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

1. come atleast 10 - 15 minutes earlier to the work spot
2. bring the necessary operational tools to the department
3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc.
4. understand the count produced, colour coding, followed in the speed frames for his allocated number of spindles or machines
5. ensure the technical details are mentioned in the display board in the speed frame machine
6. should check for the availability of the spare roving bobbins
7. should check the availability of bobbin trolley with technical details mentioned regarding the count being produced
8. check the condition of running travellers
9. check that roving passage and yarn formation is proper
10. should check for the run outs, availability of the roving bobbins
11. ensure all the spindles are running properly, if not reason for idle spindles should be enquired and reported to the superiors
12. should check the condition of different running bobbins
13. ensure proper functioning of speed frame machine parts and machine
14. ensure all allocated spindles are running with uniform length of roving on bobbin, variations if any should be discussed with operator and reported to superiors
15. check the condition of running spindles, damages if any should be reported
16. check the cleanliness of the machines & other work areas
17. check whether any spare/raw material/ tool / yarn / any other materials are thrown under the machines or in the other work areas
18. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior and that of the previous shift as well

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19. ensure no roller lapping in speed frame
20. remove the roller lapping manually, if any, without damaging the cots
21. ensure that only the correct size of spacer is used for replacement
22. ensure the wastes collection boxes are empty while taking charge of shift
23. ensure the work spot is clean
24. should take over the shift from the outgoing speed frame operator in a proper manner

Handing over shift to Speed Frame Operator-Tenter and Doffer

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

25. ensure in providing the details regarding hank / count produced, colour coding followed in the speed frames for his allocated number of spindles or machines
26. to provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any
27. should get clearance from the incoming counterpart before leaving the work spot
28. should report to his/ her shift superiors as well as that of the incoming shift in case his/ her counterpart doesn't report for the incoming shift
29. ensure that the shift has to be properly handed over to the incoming shift operator
30. should report to his/ her shift superior about the quality / production / safety issues/ any other issue faced in his/ her shift and should leave the department only after getting concurrence for the same from his/ her superiors
31. should collect the wastes from waste collection bags, weigh them and transport to storage area
32. ensure the work spot is clean

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** understanding the importance of types of fibres roving hank importance of roving quality types of roving defects
- KU7.** process flow in a spinning mill
- KU8.** material flow in a spinning mill
- KU9.** importance of mixing & count change
- KU10.** functions of different parts of speed frame machine
- KU11.** importance of colour coding followed for different counts in spinning mill
- KU12.** knowledge of waste collection system & equipments used
- KU13.** importance of material handling and types of material handling equipments used
- KU14.** functions and methodology for operating different material handling equipments
- KU15.** guidelines for operating the speed frame machine

Qualification Pack

- KU16.** guidelines for taking charge of shift from previous shift Speed Frame Operator Tenter and Doffer
- KU17.** guidelines for handing over the shift to the next shift Speed Frame OperatorTenter and Doffer
- KU18.** importance of cleanliness at workplace
- KU19.** safety procedures to be followed in a speed frame machine

Generic Skills (GS)

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

- GS1.** write clear and short sentences
- GS2.** read and 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.** patrol around the speed frame machine and identify sliver breakage, sliver exhaust, roving breakage or bobbin exhaust
- GS11.** Operate different material handling tools and equipments
- GS12.** patrol around the speed frame departments ad identifying worn out or damaged machine parts
- GS13.** check the quality of sliver, roving bobbins, proper functioning of machine parts in speed frame machine
- GS14.** maintain neatness at work place

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from Speed Frame Operator-Tenter and Doffer</i>	24	27	-	22
1. come atleast 10 - 15 minutes earlier to the work spot	1	1	-	-
2. bring the necessary operational tools to the department	1	1	-	1
3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc.	1	1	-	1
4. understand the count produced, colour coding, followed in the speed frames for his allocated number of spindles or machines	1	1	-	2
5. ensure the technical details are mentioned in the display board in the speed frame machine	1	1	-	1
6. should check for the availability of the spare roving bobbins	1	1	-	-
7. should check the availability of bobbin trolley with technical details mentioned regarding the count being produced	1	1	-	-
8. check the condition of running travellers	-	1	-	1
9. check that roving passage and yarn formation is proper	1	2	-	1
10. should check for the run outs, availability of the roving bobbins	1	1	-	1
11. ensure all the spindles are running properly, if not reason for idle spindles should be enquired and reported to the superiors	2	1	-	1
12. should check the condition of different running bobbins	1	1	-	1
13. ensure proper functioning of speed frame machine parts and machine	1	2	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
14. ensure all allocated spindles are running with uniform length of roving on bobbin, variations if any should be discussed with operator and reported to superiors	1	1	-	1
15. check the condition of running spindles, damages if any should be reported	1	1	-	1
16. check the cleanliness of the machines & other work areas	1	1	-	1
17. check whether any spare/raw material/ tool / yarn / any other materials are thrown under the machines or in the other work areas	2	1	-	1
18. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior and that of the previous shift as well	1	2	-	1
19. ensure no roller lapping in speed frame	1	1	-	1
20. remove the roller lapping manually, if any, without damaging the cots	1	1	-	1
21. ensure that only the correct size of spacer is used for replacement	1	1	-	1
22. ensure the wastes collection boxes are empty while taking charge of shift	1	1	-	1
23. ensure the work spot is clean	-	1	-	1
24. should take over the shift from the outgoing speed frame operator in a proper manner	1	1	-	1
<i>Handing over shift to Speed Frame Operator-Tenter and Doffer</i>	8	9	-	10
25. ensure in providing the details regarding hank / count produced, colour coding followed in the speed frames for his allocated number of spindles or machines	1	2	-	1
26. to provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any	1	1	-	2

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
27. should get clearance from the incoming counterpart before leaving the work spot	1	1	-	1
28. should report to his/ her shift superiors as well as that of the incoming shift in case his/ her counterpart doesn't report for the incoming shift	1	1	-	2
29. ensure that the shift has to be properly handed over to the incoming shift operator	1	1	-	1
30. should report to his/ her shift superior about the quality / production / safety issues/ 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	1	-	2
31. should collect the wastes from waste collection bags, weigh them and transport to storage area	1	1	-	1
32. ensure the work spot is clean	1	1	-	-
NOS Total	32	36	-	32

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0116
NOS Name	Taking charge of shift and handing over shift to Speed Frame Operator-Tenter and Doffer
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
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

TSC/N0117: Piecing the broken sliver at Speed Frame

Description

This unit is about following the procedure for carrying out piecing activities in the event of a sliver breakage

Scope

This unit/task covers the following:

- attending the machine on sliver breakage
- piecing the broken sliver
- feeding / replacing sliver can
- material handling of the sliver
- checking the quality of sliver piecing and starting the machine

Elements and Performance Criteria

Attending the machine on sliver breakage

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

1. Identify whether the machine stoppage is due to a sliver breakage or roving breakage
2. move in the creel and identify which sliver is broken
3. identify the reasons for sliver breakage by viewing the breakage spot i.e., whether sliver is broken at creel or sliver is exhausted in the sliver can
4. ensure minimum time is taken for attending the sliver breakage

Piecing the broken sliver

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

5. ensure that the sliver passes through the creeling section without affecting the quality of sliver
6. ensure proper length of sliver is available for piecing
7. piece the broken sliver together in the event of sliver breakage at creel section
8. piece the sliver between cans in the event of sliver exhaust in sliver can and replacement with a full sliver can
9. keep the sliver waste in the waste collection pocket provided to each tenter and then put in the waste collection box
10. ensure standard piecing procedure is adopted and quality of piecing is as per standards
11. ensure minimum time is taken for piecing the sliver

Feeding / Replacing sliver can

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

12. inspect the creeling section and identify the empty can and sliver cans which are about to be exhausted
13. remove the empty can and replace it with the full can
14. dispose empty can to storage location/drawframe department
15. bring the full cans from draw frame department or from the drawn sliver can storage location

- 16.** ensure colour coding of sliver can fed in the creel is correct

Material handling of the sliver

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

- 17.** handle the sliver properly
- 18.** ensure sliver surface doesn't get damaged
- 19.** use appropriate trolley to move/transport the sliver cans

Checking the quality of piecing and starting the machine

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

- 20.** verify the quality of piecing done in the sliver
- 21.** ensure sliver tension in the creeling section is appropriate
- 22.** ensure proper functioning of the machine

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in a spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** understanding the importance of types of fibres, types of yarn, yarn count, types of sliver, sliver hank, importance of sliver quality, types of sliver defects, reasons for sliver breakage
- KU7.** process flow in a spinning mill
- KU8.** material flow in a spinning mill
- KU9.** functions of different parts of a speed frame machine
- KU10.** colour coding for sliver cans followed for different counts in spinning mill
- KU11.** functions of various tools and equipments used
- KU12.** knowledge of waste collection system & equipment
- KU13.** types of material handling equipments used
- KU14.** functions and methodology for operating different material handling equipments
- KU15.** understanding the functions of different signal lamps
- KU16.** guidelines for operating the speed frame machine
- KU17.** safety procedures to be followed in a speed frame machine

Generic Skills (GS)

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

- GS1.** write clear and short sentences
- GS2.** read and comprehend written instructions
- GS3.** communicate with supervisor appropriately

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- 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.** follow standard operating procedures for creeling the sliver
- GS11.** move in the sliver shed to identify the broken sliver
- GS12.** transport the filled and empty can
- GS13.** procedure for unraveling the sliver from the sliver can
- GS14.** adopt standard piecing technique for piecing the broken sliver
- GS15.** analyze the sliver tension with hand
- GS16.** check the quality of piecing
- GS17.** identify the reasons for sliver breakage
- GS18.** maintain neatness at work place

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Attending the machine on sliver breakage</i>	7	9	-	4
1. Identify whether the machine stoppage is due to a sliver breakage or roving breakage	2	2	-	1
2. move in the creel and identify which sliver is broken	2	2	-	1
3. identify the reasons for sliver breakage by viewing the breakage spot i.e., whether sliver is broken at creel or sliver is exhausted in the sliver can	2	3	-	1
4. ensure minimum time is taken for attending the sliver breakage	1	2	-	1
<i>Piecing the broken sliver</i>	12	18	-	6
5. ensure that the sliver passes through the creeling section without affecting the quality of sliver	1	2	-	1
6. ensure proper length of sliver is available for piecing	2	3	-	-
7. piece the broken sliver together in the event of sliver breakage at creel section	2	3	-	1
8. piece the sliver between cans in the event of sliver exhaust in sliver can and replacement with a full sliver can	2	3	-	1
9. keep the sliver waste in the waste collection pocket provided to each tenter and then put in the waste collection box	2	2	-	1
10. ensure standard piecing procedure is adopted and quality of piecing is as per standards	2	3	-	1
11. ensure minimum time is taken for piecing the sliver	1	2	-	1
<i>Feeding / Replacing sliver can</i>	7	8	-	4

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
12. inspect the creeling section and identify the empty can and sliver cans which are about to be exhausted	1	2	-	1
13. remove the empty can and replace it with the full can	2	2	-	1
14. dispose empty can to storage location/drawframe department	1	1	-	-
15. bring the full cans from draw frame department or from the drawn sliver can storage location	1	1	-	1
16. ensure colour coding of sliver can fed in the creel is correct	2	2	-	1
<i>Material handling of the sliver</i>	5	4	-	2
17. handle the sliver properly	2	2	-	1
18. ensure sliver surface doesn't get damaged	2	1	-	1
19. use appropriate trolley to move/transport the sliver cans	1	1	-	-
<i>Checking the quality of piecing and starting the machine</i>	4	7	-	3
20. verify the quality of piecing done in the sliver	1	3	-	1
21. ensure sliver tension in the creeling section is appropriate	2	2	-	1
22. ensure proper functioning of the machine	1	2	-	1
NOS Total	35	46	-	19

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0117
NOS Name	Piecing the broken sliver at Speed Frame
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
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

TSC/N0118: Piecing the broken roving at Speed Frame

Description

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

Scope

This unit/task covers the following:

- attending the machine and identifying roving breakage
- piecing the broken roving
- material handling of roving bobbin
- check the quality of pieced roving, preparing and starting the machine

Elements and Performance Criteria

Attending the machine and identifying roving breakage

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

1. identify the reason for machine stoppage by seeing the signal lamps
2. patrol and identify in which spindle the roving is broken
3. check and identify the reasons for roving breakage by viewing at the breakage spot i.e., whether the roving is broken at spindle or flyer or drafting zone
4. ensure minimum time is taken for attending and identifying the roving breakage

Piecing the broken roving

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

5. carryout Inch and trim drafted rove for piecing
6. lift the bobbin slightly from spindle to unwind the broken roving
7. unwind or remove the broken roving from the bobbin
8. unwind extra length of roving from the bobbin
9. fix the bobbin in a proper manner in the spindle and pass the roving through the false twister making it ready for piecing
10. Use blow horn to pass the rove end in flyer
11. piece the roving between false twister and drafting zone by standard piecing techniques
12. ensure minimum time is taken for piecing the rove

Material handling of roving bobbin

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

13. ensure proper material handling of roving and roving bobbin
14. ensure surface of roving doesn't get damaged
15. ensure avoiding usage of damaged or defective bobbins

Check the quality of pieced roving, preparing and staring the machine

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

16. ensure that the quality of piecing is as per standard

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17. ensure the tension of the pieced roving is proper
18. ensure that the bobbin is perfectly fitted in the spindle
19. verify proper material passage from drafting zone till the roving is wound on bobbin
20. Run machine and check
21. remove the sliver waste and roving waste and deposit in the respective waste collection bags
22. ensure proper functioning of the machine
23. ensure and maintain colour code

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** understanding the importance of different types of fibres, sliver, roving, yarn, hank and count
- KU7.** understand the types of roving defects and reason for roving breakage
- KU8.** process flow and material flow in a spinning mill
- KU9.** functions of different parts of a speed frame machine
- KU10.** importance of piecing
- KU11.** functions of various tools and equipments used for piecing
- KU12.** knowledge of waste collection system & material handling equipments used
- KU13.** functions of different signal lamps and control buttons
- KU14.** guidelines for operating the speed frame machine
- KU15.** safety procedures to be followed in a speed frame 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.** procedure for finding the broken roving
- GS11.** procedure to patrol across the speed frame machine
- GS12.** procedure to unwind and remove the broken roving
- GS13.** procedure to unwind extra length of roving from the bobbin
- GS14.** procedure for mounting the bobbin in the spindle
- GS15.** standard piecing technique for piecing the broken roving
- GS16.** procedure to check the quality of piecing
- 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>Attending the machine and identifying roving breakage</i>	4	6	-	5
1. identify the reason for machine stoppage by seeing the signal lamps	1	1	-	2
2. patrol and identify in which spindle the roving is broken	1	2	-	1
3. check and identify the reasons for roving breakage by viewing at the breakage spot i.e., whether the roving is broken at spindle or flyer or drafting zone	1	2	-	1
4. ensure minimum time is taken for attending and identifying the roving breakage	1	1	-	1
<i>Piecing the broken roving</i>	7	9	-	5
5. carryout Inching and trim drafted rove for piecing	-	1	-	-
6. lift the bobbin slightly from spindle to unwind the broken roving	-	1	-	-
7. unwind or remove the broken roving from the bobbin	1	1	-	1
8. unwind extra length of roving from the bobbin	1	1	-	1
9. fix the bobbin in a proper manner in the spindle and pass the roving through the false twister making it ready for piecing	1	1	-	1
10. Use blow horn to pass the rove end in flyer	1	1	-	-
11. piece the roving between false twister and drafting zone by standard piecing techniques	2	2	-	1
12. ensure minimum time is taken for piecing the rove	1	1	-	1
<i>Material handling of roving bobbin</i>	3	5	-	3

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
13. ensure proper material handling of roving and roving bobbin	1	2	-	1
14. ensure surface of roving doesn't get damaged	1	2	-	1
15. ensure avoiding usage of damaged or defective bobbins	1	1	-	1
<i>Check the quality of pieced roving, preparing and starting the machine</i>	6	15	-	7
16. ensure that the quality of piecing is as per standard	1	2	-	1
17. ensure the tension of the pieced roving is proper	1	2	-	1
18. ensure that the bobbin is perfectly fitted in the spindle	1	2	-	1
19. verify proper material passage from drafting zone till the roving is wound on bobbin	1	2	-	1
20. Run machine and check	-	2	-	-
21. remove the sliver waste and roving waste and deposit in the respective waste collection bags	1	1	-	1
22. ensure proper functioning of the machine	-	2	-	1
23. ensure and maintain colour code	1	2	-	1
NOS Total	20	35	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0118
NOS Name	Piecing the broken roving at Speed Frame
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2018
NSQC Clearance Date	05/08/2015

TSC/N0119: Preparing for doffing at Speed Frame

Description

This unit is about doing the preparation for carrying out doffing activity

Scope

This unit/task covers the following:

- identify the machine for carrying out doffing activity
- collect the empty bobbins from storage area
- load the empty bobbins in the bobbin trolley
- support in preparing the creel zone in case of count change

Elements and Performance Criteria

Identify the machine for carrying out doffing

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

1. follow the plan as instructed by superior for performing doffing activities at various machines in speed frame department
2. identify which machine in speed frame departments is ready for doffing

Collect the empty bobbins from storage area

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

3. identify the empty bobbin required for next doff and segregate it size wise, count wise and type wise
4. ensure the bobbins are clean, clean the empty bobbins if needed
5. ensure the empty bobbins in good condition
6. remove the damaged bobbins and store in a separate place
7. ensure correct sized and colour coded empty bobbin is to be loaded in the bobbin trolley
8. ensure proper material handling of empty bobbin

Load the empty bobbins in the bobbin trolley

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

9. load the empty bobbins in the bobbin trolley in an organized manner
10. load the required number of empty bobbins as per requirement in different bobbin trolleys
11. move and arrange the bobbin trolleys in an organized manner near the speed frame machine
12. ensure minimum time is taken for carrying out the activities

support in preparing the creel zone in case of count change

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

13. support the tenter in bringing the new sliver cans from the draw frame department to the speed frame creeling zone
14. to ensure correct sliver can is taken from the draw frame department
15. arrange the sliver cans in an organized manner near the creel zone

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16. distribute the existing slivers without waste to sliver cans at the time of starting new count or run out or any other time as required
17. ensure proper material handling of sliver and sliver can

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** process flow and material flow in a spinning mill
- KU7.** functions of different parts of a speed frame machine
- KU8.** understanding the importance of fibres, types of yarn, yarn count, types of sliver, sliver hank, importance of sliver and roving quality
- KU9.** knowledge of different type of bobbin
- KU10.** importance of colour coding
- KU11.** importance of material handling
- KU12.** types of material handling equipment used
- KU13.** functions and methodology for operating different material handling equipment
- KU14.** importance of cleanliness at work place
- KU15.** safety procedures to be followed in a speed frame 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.** skill to identify the defects in empty bobbin
- GS11.** procedure to arrange empty bobbin in the bobbin trolley
- GS12.** procedure to operate different material handling equipment
- GS13.** proper material handling of empty bobbin and sliver can

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- GS14.** procedure to distribute the existing slivers without waste to sliver cans
- GS15.** procedure for proper material handling of sliver
- GS16.** standard piecing technique for piecing the sliver
- 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>Identify the machine for carrying out doffing</i>	2	3	-	5
1. follow the plan as instructed by superior for performing doffing activities at various machines in speed frame department	1	1	-	3
2. identify which machine in speed frame departments is ready for doffing	1	2	-	2
<i>Collect the empty bobbins from storage area</i>	7	12	-	6
3. identify the empty bobbin required for next doff and segregate it size wise, count wise and type wise	1	2	-	1
4. ensure the bobbins are clean, clean the empty bobbins if needed	1	2	-	1
5. ensure the empty bobbins in good condition	1	2	-	1
6. remove the damaged bobbins and store in a separate place	2	2	-	1
7. ensure correct sized and colour coded empty bobbin is to be loaded in the bobbin trolley	1	2	-	1
8. ensure proper material handling of empty bobbin	1	2	-	1
<i>Load the empty bobbins in the bobbin trolley</i>	5	10	-	4
9. load the empty bobbins in the bobbin trolley in an organized manner	1	3	-	1
10. load the required number of empty bobbins as per requirement in different bobbin trolleys	2	2	-	1
11. move and arrange the bobbin trolleys in an organized manner near the speed frame machine	1	3	-	1
12. ensure minimum time is taken for carrying out the activities	1	2	-	1
<i>support in preparing the creel zone in case of count change</i>	6	10	-	5

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
13. support the tenter in bringing the new sliver cans from the draw frame department to the speed frame creeling zone	1	2	-	1
14. to ensure correct sliver can is taken from the draw frame department	1	2	-	1
15. arrange the sliver cans in an organized manner near the creel zone	1	2	-	1
16. distribute the existing slivers without waste to sliver cans at the time of starting new count or run out or any other time as required	1	2	-	1
17. ensure proper material handling of sliver and sliver can	2	2	-	1
NOS Total	20	35	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0119
NOS Name	Preparing for doffing at Speed Frame
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2018
NSQC Clearance Date	05/08/2015

TSC/N0120: Carrying out doffing activity at Speed frame

Description

This unit is about carrying out the doffing in the speed frame machine

Scope

This unit/task covers the following:

- transport the empty bobbin trolley to the speed frame machine
- carrying out doffing
- Check for completion of doffing activity

Elements and Performance Criteria

Transport the empty bobbin trolley to the speed frame machine

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

1. transport the empty bobbin trolley to the front part of speed frame machine
2. arrange the empty bobbin trolley in an organized manner
3. stop the machine

Carrying out doffing

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

4. ensure the machine is completely stopped and open the safety door
5. remove the full bobbin from spindle and store in the bobbin trolley
6. fix the empty bobbin in the spindle
7. repeat the doffing activity for specified number of spindles as instructed by his / her superior
8. gait the roving end with the empty bobbin
9. ensure proper material handling of roving and full bobbin
10. ensure minimum time is taken for carrying out doffing activity

Check for completion of doffing activity

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

11. ensure all the full bobbins are replaced with empty bobbins
12. ensure gaiting is done for all the spindles in a proper manner
13. ensure all the full bobbins are placed in the bobbin trolley

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill

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- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** the importance of different types of fibres, sliver, roving, yarn, hank and count
- KU7.** the types of roving defects and reason for roving breakage
- KU8.** process flow and material flow in a spinning mill
- KU9.** functions of different parts of a speed frame machine
- KU10.** functions of different signal lamps and control buttons
- KU11.** knowledge on doffing
- KU12.** guidelines for operating the speed frame machine
- KU13.** operational procedure for carrying out doffing activity
- KU14.** importance of material handling
- KU15.** safety procedures to be followed in a speed frame 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 operation procedure for transporting & arranging the empty bobbin trolley near speed frame machine
- GS11.** standard operating procedure for carrying out doffing activity
- GS12.** procedure for cleaning different parts in delivery zone
- GS13.** proper material handling of roving and roving bobbin
- GS14.** maintain neatness at work place

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Transport the empty bobbin trolley to the speed frame machine</i>	2	5	-	2
1. transport the empty bobbin trolley to the front part of speed frame machine	1	1	-	1
2. arrange the empty bobbin trolley in an organized manner	1	2	-	1
3. stop the machine	-	2	-	-
<i>Carrying out doffing</i>	7	14	-	7
4. ensure the machine is completely stopped and open the safety door	1	2	-	1
5. remove the full bobbin from spindle and store in the bobbin trolley	1	2	-	1
6. fix the empty bobbin in the spindle	1	2	-	1
7. repeat the doffing activity for specified number of spindles as instructed by his / her superior	1	2	-	1
8. gait the roving end with the empty bobbin	1	2	-	1
9. ensure proper material handling of roving and full bobbin	1	2	-	1
10. ensure minimum time is taken for carrying out doffing activity	1	2	-	1
<i>Check for completion of doffing activity</i>	4	5	-	4
11. ensure all the full bobbins are replaced with empty bobbins	2	2	-	2
12. ensure gaiting is done for all the spindles in a proper manner	1	2	-	1
13. ensure all the full bobbins are placed in the bobbin trolley	1	1	-	1
NOS Total	13	24	-	13

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0120
NOS Name	Carrying out doffing activity at Speed frame
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2018
NSQC Clearance Date	05/08/2015

TSC/N0121: Tenting responsibilities at Speed Frame

Description

The unit is about carrying out the responsibilities of a speed frame doffer post doffing activity

Scope

This unit/task covers the following:

- Post doffing activities
- Transporting & storing the filled bobbin
- Other responsibilities

Elements and Performance Criteria

Post doffing responsibilities

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

1. ensure the doffing is carried out in a proper manner
2. ensure the delivery zone is clean
3. support the tenter by bringing draw frame can for creeling, creeling activities and piecing in the event of a count change
4. ensuring the machine is ready to start
5. ensure proper functioning of machine
6. report to the supervisor / maintenance team if the machine is not functioning properly

Transporting & storing the filled bobbin

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

7. ensure proper transportation of filled bobbin trolley
8. ensure count wise storage of filled roving bobbin in storage area
9. ensure proper material handling of roving bobbin
10. ensure material is covered post doffing

Other responsibilities

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

11. ensure in keeping the empty bobbins clean and arranged in proper manner
12. clean the defective roving bobbins in the respective shift
13. segregate the sliver waste and roving waste count wise and store in the respective waste bins
14. weigh different types of waste collected in the speed frame departments
15. transport the collected wastes to the waste room
16. support tenter in carrying out tenting activities as instructed by supervisor
17. support the maintenance team while machine is under maintenance
18. clean the gear end, off end, spindle rails, spindles, bobbin rail, clearer rollers and other parts of machine as instructed by supervisor using proper cleaning tools
19. take part in doffs wherever necessary as instructed by the supervisor

20. transport the empty cans to the draw frame can storage area after count change
21. ensure cleanliness at work place

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** report to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different counts in the spinning mill
- KU6.** process flow and material flow in a spinning mill
- KU7.** functions of different parts of a speed frame machine
- KU8.** knowledge of different types of roving defects
- KU9.** importance of removing the defective roving
- KU10.** types of waste collected from the speed frame machine
- KU11.** importance of cleaning
- KU12.** types and functions of various cleaning tools and equipments
- KU13.** guidelines for cleaning the various part of speed frame machine
- KU14.** operational schedule for cleaning different parts of speed frame machine
- KU15.** knowledge on the tenting activities to be followed in a speed frame machine
- KU16.** importance of machine maintenance
- KU17.** knowledge of basic maintenance activities to be carried out in a speed frame machine
- KU18.** guidelines for carrying out routine preventive maintenance activities

Generic Skills (GS)

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

- GS1.** apply good attention to detail
- GS2.** check your work is complete and free from errors
- GS3.** Clean the empty bobbin
- GS4.** arrange empty bobbins in storage area
- GS5.** remove defects in roving bobbin
- GS6.** clean different parts of machine
- GS7.** clean the doffing zone
- GS8.** handle different material handling tools
- GS9.** follow standard piecing procedure
- GS10.** follow standard doffing procedure
- GS11.** transport filled bobbin trolley
- GS12.** write clear and short sentences

- GS13.** read and comprehend written instructions
- GS14.** communicate with supervisor appropriately
- GS15.** talk to others to convey information effectively
- GS16.** apply problem-solving approaches in different situations
- GS17.** refer anomalies to the supervisor
- GS18.** seek clarification on problems from others

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Post doffing responsibilities</i>	6	12	-	11
1. ensure the doffing is carried out in a proper manner	1	1	-	3
2. ensure the delivery zone is clean	1	2	-	2
3. support the tenter by bringing draw frame can for creeling, creeling activities and piecing in the event of a count change	1	3	-	1
4. ensuring the machine is ready to start	1	2	-	1
5. ensure proper functioning of machine	1	2	-	1
6. report to the supervisor / maintenance team if the machine is not functioning properly	1	2	-	3
<i>Transporting & storing the filled bobbin</i>	5	8	-	5
7. ensure proper transportation of filled bobbin trolley	1	2	-	1
8. ensure count wise storage of filled roving bobbin in storage area	1	2	-	2
9. ensure proper material handling of roving bobbin	1	2	-	1
10. ensure material is covered post doffing	2	2	-	1
<i>Other responsibilities</i>	15	26	-	12
11. ensure in keeping the empty bobbins clean and arranged in proper manner	1	2	-	1
12. clean the defective roving bobbins in the respective shift	1	3	-	2
13. segregate the sliver waste and roving waste count wise and store in the respective waste bins	2	3	-	1
14. weigh different types of waste collected in the speed frame departments	2	2	-	1

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. transport the collected wastes to the waste room	1	2	-	1
16. support tenter in carrying out tenting activities as instructed by supervisor	1	2	-	1
17. support the maintenance team while machine is under maintenance	2	2	-	1
18. clean the gear end, off end, spindle rails, spindles, bobbin rail, clearer rollers and other parts of machine as instructed by supervisor using proper cleaning tools	2	3	-	1
19. take part in doffs wherever necessary as instructed by the supervisor	1	3	-	1
20. transport the empty cans to the draw frame can storage area after count change	1	2	-	1
21. ensure cleanliness at work place	1	2	-	1
NOS Total	26	46	-	28

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0121
NOS Name	Tenting responsibilities at Speed Frame
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
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

TSC/N0122: Carry out additional tenting responsibilities effectively

Description

This unit is about carrying out the tenting responsibilities in a speed frame machine other than piecing the sliver and rove

Scope

This unit/task covers the following:

- Carryout cleaning & maintenance activities
- Carryout preventive maintenance activities
- other tenting responsibilities

Elements and Performance Criteria

Carry out cleaning & maintenance activities

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

1. clean the creeling area
2. ensure proper removal of dusts from the creeling zone
3. clean the front and back portion of the machine
4. clean the back portion of the drafting arrangement
5. clean the front portion of drafting arrangement
6. ensure proper cleaning of drafting zone
7. clean the flyer, bobbin rail and spindle rail
8. collect the wastes in the waste collection chamber and depositing in the waste collection box
9. remove the wastes in the clearer rollers on a timely basis
10. ensure the wastes collected from different parts of machine are deposited in the respective dustbins
11. clean the alley around the speed frame machine using proper cleaning equipments
12. ensure the speed frame department is neat and clean

Carry out preventive maintenance activities

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

13. ensure proper functioning of machine
14. check and verify the quality of different machine parts
15. remove the worn-out parts and replace with new parts in speed frame machine
16. carry out preventive maintenance activities at the specified intervals
17. oil various parts of speed frame machine if necessary

Other tenting responsibilities

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

18. verify the proper build of the roving bobbin
19. support the doffer while carrying out doffing activities

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20. record the production details in the production report
21. report to the supervisor in case of emergency stoppage of machine
22. report to the supervisor and maintenance incharge if the operator had replaced the worn-out machine part with a new one
23. support the maintenance team while machine is under maintenance
24. ensure all details related to production are provided to the next shift operator while relieving
25. ensure count wise storage of wound bobbin without damaging the roving

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a spinning / textile mill
- KU2.** safe working practices to be adopted in spinning / textile mill
- KU3.** quality systems and other processes practiced in the spinning / textile mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** process flow and material flow in a spinning mill
- KU6.** functions of different parts of a speed frame machine
- KU7.** importance of cleaning
- KU8.** types and functions of various cleaning tools and equipments
- KU9.** types of waste collected from the speed frame machine
- KU10.** guidelines for cleaning the various part of speed frame machine
- KU11.** operational schedule for cleaning different parts of speed frame machine
- KU12.** operational schedule for collecting wastes from waste collection chamber
- KU13.** types of possible worn out parts in a speed frame machine
- KU14.** guidelines for carrying out routine preventive maintenance activities
- KU15.** knowledge on the function of building mechanism in speed frame machine
- KU16.** knowledge of various types of oil used for preventive maintenance
- KU17.** understanding the safety precautions to be followed in a speed frame department

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

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- GS9.** check your work is complete and free from errors
- GS10.** procedure for operating the various cleaning tools and equipments
- GS11.** procedure for cleaning the creeling area
- GS12.** procedure for cleaning the drafting zone
- GS13.** procedure for cleaning the flyer, bobbin rail and spindle rails
- GS14.** procedure for collection of wastes from waste collection chamber
- GS15.** procedure for cleaning the waste collection chamber
- GS16.** procedure for cleaning other parts of speed frame machine
- GS17.** procedure for cleaning the alley around the speed frame machine
- GS18.** procedure for proper material handling of cleaning equipments
- GS19.** Maintain neatness at work place
- GS20.** procedure to identify and remove worn out parts in speed frame machine
- GS21.** procedure to replace the worn-out parts with a new machine part
- GS22.** procedure for carrying our preventive maintenance activities
- GS23.** procedure for oiling different parts of speed frame machine
- GS24.** procedure to store the full bobbin in the storage area without damaging the roving

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out cleaning & maintenance activities</i>	13	21	-	13
1. clean the creeling area	1	1	-	1
2. ensure proper removal of dusts from the creeling zone	1	1	-	1
3. clean the front and back portion of the machine	1	2	-	1
4. clean the back portion of the drafting arrangement	1	2	-	1
5. clean the front portion of drafting arrangement	1	2	-	1
6. ensure proper cleaning of drafting zone	1	2	-	1
7. clean the flyer, bobbin rail and spindle rail	1	2	-	1
8. collect the wastes in the waste collection chamber and depositing in the waste collection box	1	2	-	1
9. remove the wastes in the clearer rollers on a timely basis	1	2	-	1
10. ensure the wastes collected from different parts of machine are deposited in the respective dustbins	2	2	-	2
11. clean the alley around the speed frame machine using proper cleaning equipments	1	1	-	1
12. ensure the speed frame department is neat and clean	1	2	-	1
<i>Carry out preventive maintenance activities</i>	5	10	-	6
13. ensure proper functioning of machine	1	2	-	1
14. check and verify the quality of different machine parts	1	2	-	-
15. remove the worn-out parts and replace with new parts in speed frame machine	1	2	-	2

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
16. carry out preventive maintenance activities at the specified intervals	1	2	-	1
17. oil various parts of speed frame machine if necessary	1	2	-	2
<i>Other tenting responsibilities</i>	8	15	-	9
18. verify the proper build of the roving bobbin	1	1	-	1
19. support the doffer while carrying out doffing activities	1	2	-	1
20. record the production details in the production report	1	2	-	1
21. report to the supervisor in case of emergency stoppage of machine	1	2	-	2
22. report to the supervisor and maintenance incharge if the operator had replaced the worn-out machine part with a new one	1	2	-	1
23. support the maintenance team while machine is under maintenance	1	2	-	1
24. ensure all details related to production are provided to the next shift operator while relieving	1	2	-	1
25. ensure count wise storage of wound bobbin without damaging the roving	1	2	-	1
NOS Total	26	46	-	28

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N0122
NOS Name	Carry out additional tenting responsibilities effectively
Sector	Textile
Sub-Sector	Spinning
Occupation	Spinning Preparatory
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	25/02/2015
Next Review Date	01/03/2018
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

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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

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

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

Qualification Pack

- 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

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

Qualification Pack

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

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/N0116.Taking charge of shift and handing over shift to Speed Frame Operator-Tenter and Doffer	32	36	-	32	100	11
TSC/N0117.Piecing the broken sliver at Speed Frame	35	46	-	19	100	11
TSC/N0118.Piecing the broken roving at Speed Frame	20	35	-	20	75	9

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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N0119.Preparing for doffing at Speed Frame	20	35	-	20	75	9
TSC/N0120.Carrying out doffing activity at Speed frame	13	24	-	13	50	6
TSC/N0121.Tenting responsibilities at Speed Frame	26	46	-	28	100	12
TSC/N0122.Carry out additional tenting responsibilities effectively	26	46	-	28	100	12
TSC/N9001.Maintain work area, tools and machines	17	20	-	13	50	6
TSC/N9002.Working in a team	19	20	-	11	50	6
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	12
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	6
Total	255	368	-	227	850	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.

Qualification Pack

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.