

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

NSDA Reference

To be added by NSDA

Revised by NSDA 25 May, 2015

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

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Aerospace & Aviation Sector Skill Council (AASSC)

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List of documents submitted in support of the Qualifications File

1. Career Map/ Progression of **Helicopter Transmission Technician**–
Refer Career Paths – 8 MRO Job Roles : Annexure 1
<C:\Users\Chetan-AASSC\Desktop\8 MRO Job Roles>
2. QP - **AAS/Q2004**– [Annexure 2](#)
3. Skill Reports within the Aviation sector – [Annexure 3](#)

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SUMMARY

| | |
|---|--|
| Qualification Title | Helicopter Transmission Technician |
| Qualification Code | AAS/Q2004 |
| Nco code and occupation | NCO-2015/NIL |
| Industry as per NIC | NIL |
| Nature and purpose of the qualification | <p>Nature of the qualification</p> <ul style="list-style-type: none">- a Qualification Pack (QP) <p>The main purpose of the qualification</p> <ul style="list-style-type: none">- Helicopter Transmission Technician is responsible for repairing and maintaining transmission system for helicopters, performing sub-assembly operations like bearing staking, bush pressing (interference fits), and use of UTM for bearing push out load check. |
| Body/bodies which will award the qualification | AASSC (Aerospace and Aviation Sector Skill Council) |
| Body which will accredit providers to offer courses leading to the qualification | AASSC (Aerospace and Aviation Sector Skill Council) |
| Body/bodies which will carry out assessment of learners | <p>From the list of empanelled assessment bodies reviewed over a period of time.</p> <ol style="list-style-type: none">1. Skills mantra edutech consulting India Pvt.Ltd2. India Skills Pvt Ltd3. Cocubes technologies Private Limited4. Aspring Minds Assessments Pt.Ltd5. Mettl India Pvt Ltd/Induslynk Training Services Pvt Ltd6. Formac Software Services Pvt. Ltd. |
| Occupation(s) to which the qualification gives access | Helicopter Transmission Technician -Base Maintenance |
| Licensing requirements | - |
| Level of the qualification in the NSQF | 4 |
| Anticipated volume of training/learning required to complete the qualification | 384 Hours |
| Entry requirements and/or recommendations | <p>Minimum Educational Qualifications: Class XII (Science)</p> <p>Minimum Job Entry Age- Above 18 years</p> |
| Progression from the qualification | Shift In Charge - Base Maintenance |
| Planned arrangements | RPL arrangements and policies are under development |

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| | |
|---|---|
| for the Recognition of Prior learning (RPL) | |
| International comparability where known | International comparability and country specific studies will be done at a later stage. |
| Date of planned review of the qualification. | March 2020 |

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| Formal structure of the qualification | | | |
|--|--------------------------------|--|--------------|
| Title of component and identification code. | Mandatory/ Optional | Estimated size (learning hours) | Level |
| 1. Follow safety and security procedures | Mandatory | 48 | 3 |
| 2. Performing Helicopter Transmission Assembly Operations | Mandatory | 304 | 4 |
| 3. Maintain 5S at the work premises | Mandatory | 32 | 3 |
| Add boxes as required for alignment. | | | |

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum Document or a Qualification Pack.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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SECTION 1 ASSESSMENT

Body/Bodies which will carry out assessment:

If there will be more than one assessment body for this qualification, give details.

- From the list of empanelled assessment bodies reviewed over a period of time.

How will RPL assessment be managed and who will carry it out?

- AASSC recognises that there may be candidates who have prior learning experience in the Aviation and Aerospace sector and are desirous of being certified. Such candidates can apply to AASSC for testing and certification of their skills, and they will be allotted a training provider/TC for being tested. Documentation for such candidates will be done by the Training provider / TC. Certificates of successful candidates will be despatched to the TP/TC for distribution to them.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.

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Assessment will be based on the concept of Independent Assessors empanelled with Assessment Agencies, identified, selected, trained and certified on Assessment techniques. The assessors would be aligned to assess as per the laid down criteria.

Assessment Agency would conduct assessment only at the training centres of the Training Partner or designated testing centers authorised by AASSC.

Ideally, the assessment will be a continuous process comprising of two assessments:

1. A Mid- term assessment
2. Final / Term assessment.

Each National Occupational Standard (NOS) in the respective QPs will be assigned weightage. Therein each Performance Criteria in the NOS will be assigned marks for theory and / or practical based on relative importance and criticality of function.

This will facilitate preparation of question bank / paper sets for each of the QPs. Each of these papers sets / question bank so created by the Assessment Agency will be validated by the industry subject matter experts through FICSI, especially with regard to the practical test and the defined tolerances, finish, accuracy etc.

The following tools are proposed to be used for final assessment:

i. **Written Test:** This will comprise of (i) True / False Statements (ii) Multiple Choice Questions (iii) Matching Type Questions. Online system for this will be preferred.

ii. **Practical Test:** This will comprise a test job to be prepared as per project briefing following appropriate working steps, using necessary tools, equipment and instruments. Through observation it will be possible to ascertain candidate's aptitude, attention to details, quality consciousness etc.

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The end product will be measured against the pre-decided MCQ filled by the Assessor to gauge the level of his skill achievements.

iii. **Structured Interview:** This tool will be used to assess the conceptual understanding and the behavioral aspects as regards the job role and the specific task at hand.

- The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria.
- The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Qualification Pack. The assessments papers are also checked for the various outcome based parameters such as quality, time taken, precision, tools & equipment requirement etc. The assessment sets will be then reviewed by AASSC official for consistency.
- The assessments are designed so as to assess maximum parts during the practical hands on work. The technical limitations at the training centres are taken care in theory and viva.
- The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to ideally have assessor with minimum 15 years industry experience as an ITI graduate / minimum 10 years' industry experience as diploma engineer and minimum 5 years' industry experience as graduate engineer.
- The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to AASSC Assessment Framework, competency based assessments, assessors guide etc.
- The assessors are provided with assessors guide developed by the Subject Matter Expert of the assessment agency as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency in the assessment by different assessors and elaborate on the following
 1. Qualification Pack Structure
 2. Guidance for the assessor to conduct theory, practical and viva assessments
 3. Guidance for trainees to be given by assessor before the start of the assessments.
 4. Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
 5. Viva guidance for uniformity and consistency across the batch.
- The assessment by assessment agency will be completely based on the assessment criteria as mentioned in the Qualification Pack. Each NOS in the Qualification Pack (QP) will be assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS will be assigned marks for or practical based on relative importance, criticality of function and training infrastructure.S

Please attach any documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

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ASSESSMENT EVIDENCE

Job Role: Helicopter Transmission Technician

Qualification Pack: AAS/Q12004

Sector Skill Council: Aerospace and Aviation Sector Skill Council

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (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 this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in aggregate
6. The marks are allocated PC wise, however, every NOS will carry a weightage in the total marks allocated to the specific QP

| Assessment outcomes | Assessment Criteria for outcomes | Marks Allocation | | | |
|---|--|------------------|--------|--------|------------------|
| | | Total Marks | Out of | Theory | Skills Practical |
| 1. AAS/N0502 Follow safety and security procedures | PC 1. comply with the organisation's safety and security policies and procedures | 100 | 10 | 5 | 5 |
| | PC 2. comply with the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference | | 10 | 5 | 5 |
| | PC 3. report any identification breaches of safety, and security policies and procedures to the designated person | | 10 | 5 | 5 |
| | PC 4. coordinate with other resource at the workplace (within and outside the organisation) to achieve safe and secure environment | | 20 | 10 | 10 |
| | PC 5. identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if ti falls within the limit of individual's authority | | 10 | 5 | 5 |
| | PC 6. report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines | | 20 | 10 | 10 |
| | PC 7. follow organisation's emergency procedures for accidents, fires or acts of unlawful interference | | 5 | 2 | 3 |

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|--|--|--------------|------------|----|----|
| | PC 8. identify and recommend opportunities for improving health, safety, and security to the designated person | | 10 | 8 | 2 |
| | PC 9. ensure all health and safety records are updated and procedures well defined | | 5 | 2 | 3 |
| | | Total | 100 | 52 | 48 |

| Assessment outcomes | Assessment Criteria for outcomes | Marks Allocation | | | |
|--|---|------------------|--------|--------|------------------|
| | | Total Marks | Out of | Theory | Skills Practical |
| 2. AAS/N2009 performing helicopter transmission assembly operations | PC1. identify damages in loaded parts and be able to check the documents for matching with the defined SOP and drawings | 100 | 5 | 2 | 3 |
| | PC2. refer to the process requirements as given in the standards, route books, and manuals | | 5 | 2 | 3 |
| | PC3. understand the Gleason spiral bevel gear system and its manufacturing techniques/manufacturing machines | | 5 | 2 | 3 |
| | PC4. study the process sheets/standard practices manuals / modification documents and evolutionary history of the transmission modules | | 5 | 2 | 3 |
| | PC5. check condition of assembly/disassembly/dimension-torque checking tools and gauges | | 4 | 2 | 2 |
| | PC6. use special tools used for giving load to the gear meshes, for alignment checks, backlash measurement of gears, bearing installation and staking tools | | 4 | 2 | 2 |
| | PC7. ensure that improper use of tools and its damage to the parts beings assembled are gauged prior to assembly itself as a precautionary measure | | 4 | 2 | 2 |
| | PC8. understand the procedure of operating assembly machinery like the deep freezers, Universal testing machines, hydraulic presses of 10 Tons load, torque multipliers, hydraulic jacks, and overhead cranes | | 4 | 2 | 2 |
| | PC9. safely use the electrical-electronic gadgets for actuated freewheel rigging operations, pneumatic tools and gauges | | 4 | 2 | 2 |
| | PC10. check if the elastomeric is damaged-oozed out etc. | | 4 | 2 | 2 |
| | PC11. assemble bearings in to the Magnesium housings/gear shafts | | 4 | 2 | 2 |
| | PC12. assemble bushes (interference fits) using deep freeze-oven/heat guns | | 4 | 2 | 2 |
| | PC13. Install the pattern check tools in the gear boxes and apply 10 nm torque thru dead weights or by tightening the conical surfaces for achieving the desired patterns/ backlash values | | 4 | 2 | 2 |
| | PC14. ensure proper rotational drag on parts with bearings to ensure that unnecessary pre-load is not given | | 4 | 2 | 2 |

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|--|--|--------------|------------|-----------|-----------|
| | PC15. give proper torque using calibrated torque wrenches, ensuring to wire lock parts thru positive wire locking | | 4 | 2 | 2 |
| | PC16. check for burrs on edges of parts to prevent damage during assembly especially in critical areas of the gear boxes | | 4 | 2 | 2 |
| | PC17. perform rigging of the actuated freewheels, installation of hydraulic actuators with the gear boxes | | 4 | 2 | 2 |
| | PC18. perform assembly of shaft modules and balancing of the shafts | | 4 | 2 | 2 |
| | PC19. perform bearing staking and proof load testing | | 4 | 2 | 2 |
| | PC20. check for proper rotational drag/positive wire locking /line replaceable units' installation/slippage marks/wpc application on the modules needs to be understood | | 4 | 2 | 2 |
| | PC21. perform rigging of actuated freewheels, spring stiffness checks on assembly for the freewheel units, adjusting shims for achieving dynamic contact patterns in case of corrections | | 4 | 2 | 2 |
| | PC22. perform calculations for achieving balance values post PI checks of shafts in the Ground test centers | | 4 | 2 | 2 |
| | PC23. check for FOD, elimination of blocked oil jets from the gear boxes, proper sequence of wire locking and usage of plastic sleeve in the wires to prevent damage to the magnesium housings, proper application of weather proofing compound/proper application of slippage marks | | 4 | 2 | 2 |
| | PC24. record the critical interfacing dimensions during the assembly operations, proper application of slippage marks, proper installation of seals and o-rings | | 4 | 2 | 2 |
| | | Total | 100 | 48 | 52 |
| 3. AAS/N0021 Maintain 5S at the work premises | PC1. follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces | 170 | 30 | 10 | 20 |
| | PC2. ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions | | | | |
| | PC3. follow the technique of waste disposal and waste storage in the proper bins as per SOP | | | | |
| | PC4. segregate the items which are labeled as red tag items for the process area and keep them in the correct places | | | | |
| | PC5. sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5S guidelines/ work instructions | | | | |
| | PC6. ensure that areas of material storage areas are not overflowing | | 30 | 10 | 20 |

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|-------|--|----|----|----|
| PC7. | properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required | | | |
| PC8. | return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area | | | |
| PC9. | follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards | | | |
| PC10. | follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists | | | |
| PC11. | check that the items in the respective areas have been identified as broken or damaged | | | |
| PC12. | follow the given instructions and check for labeling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc. | 30 | 10 | 20 |
| PC13. | make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions | | | |
| PC14. | check whether safety glasses are clean and in good condition | | | |
| PC15. | keep all outside surfaces of recycling containers are clean | | | |
| PC16. | ensure that the area has floors swept, machinery clean and generally clean. In case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards | | | |
| PC17. | check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up | 50 | 10 | 40 |
| PC18. | ensure workbenches and work surfaces are clean and in good condition | | | |
| PC19. | follow the cleaning schedule for the lighting system to ensure proper illumination | | | |
| PC20. | store the cleaning material and equipment in the correct location and in good condition | | | |
| PC21. | ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene | | | |
| PC22. | follow the daily cleaning standards and schedules to create a clean working environment | | | |
| PC23. | attend all training programs for employees on 5 S | 30 | 10 | 20 |
| PC24. | support the team during the audit of 5S | | | |
| PC25. | participate actively in employee work groups on 5S and encourage team members for active participation | | | |

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| | | | | | |
|--|---|--------------|------------|-----------|------------|
| | PC26. follow the guidelines for What to do and what not to do to build sustainability in 5S as mentioned in the 5S check lists/ work instructions | | | | |
| | | Total | 170 | 30 | 120 |

Complete a grid for each component as listed in “Formal structure of the the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.

| |
|---|
| Means of assessment 1 Written/ Viva Exam |
| Means of assessment 2 On the Job Observation/ work deliverables/ record sheets for practicals |
| Pass/Fail Practical: 70% Theory: 70% |

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Title of Component:

| Outcomes to be assessed | Assessment criteria for the outcome |
|--|-------------------------------------|
| | |
| | |
| | |
| Means of assessment 1 | |
| Means of assessment 2 Add boxes as required. | |
| Pass/Fail | |

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SECTION 2

EVIDENCE OF LEVEL

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OPTION A

| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|---|---|--|------------|
| NSQF Domain | Outcomes of the Qualification/Component | How the job role relates to the NSQF level descriptors | NSQF Level |
| Process | | | |
| Professional knowledge | | | |
| Professional skill | | | |
| Core skill | | | |
| Responsibility | | | |

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OPTION B

| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|--|---|--|------------|
| NSQF Domain | Key requirements of the job role | How the job role relates to the NSQF level descriptors | NSQF Level |
| Process | Helicopter Transmission Technician is responsible for repairing and maintaining helicopter transmission systems, performing sub-assembly operations like bearing staking, bush pressing (interference fits), and use of UTM for bearing push out load check. He/ She is responsible for understanding the requirement of gear boxes, control systems and mechanical assemblies. | <p>The job holder is responsible for carrying out activities such as repairing and maintaining helicopter transmission systems performing sub-assembly operations like bearing staking, bush pressing (interference fits), and use of UTM for bearing push out load check. He/ She is responsible for understanding the requirement of gear boxes, control systems and mechanical assemblies. This involves working in some familiar, predictable and routine situations. He will be responsible for carrying out a range of jobs where some of them will require them to make choices about the approaches that must be adopted. Hence, it qualifies as a Level 4 Role.</p> <p>For ex: Carrying out the different gear box assembly operations/ shaft assembly-balancing operations/ rotor assembly-balancing operations and sub-assemblies in the helicopter transmission assembly shop. For preparing for the assembly operations, identify damages in loaded parts and be able to check the documents for matching with the defined SOP and drawings, refer to the process requirements as given in the standards, route books and manuals, study the process sheets/standard practices manuals / modification documents and evolutionary history of the transmission modules, etc.,</p> | 4 |

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| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|--|---|--|------------|
| NSQF Domain | Key requirements of the job role | How the job role relates to the NSQF level descriptors | NSQF Level |
| | | <p>However, the job holder does not perform problem solving or supervisory role. Therefore, it does not qualify for Level 5 role.</p> <p>At the same time, the job holder is not required to work in a limited to range of jobs under close supervision. He is also not a 'partly skilled' worker, the job role cannot be pegged at level 3. for ex., understand the Gleason spiral bevel gear system and its manufacturing techniques/manufacturing machines, study the process sheets/standard practices manuals / modification documents and evolutionary history of the transmission modules , check condition of assembly/disassembly/dimension-torque checking tools and gauges as mentioned in the adjacent cell. Hence NSQF level should be 4.</p> | |
| Professional knowledge | <p>The user/individual on the job needs to know and understand: comprehend the organisation's safety and security policies and procedures, comprehend the regulatory guidelines on safe conduct of operations and maintenance of conditions to thwart any acts of unlawful interference, report any identified breaches of safety, and security policies and procedures to the designated person, coordinate with other resources at the workplace (within and outside the organisation) to achieve safe and secure environment, identify and mitigate any safety and security hazards like illness, accidents, fires or acts of unlawful interference if it falls within the limits of individual's authority, report any hazards outside the individual's authority to the relevant person in line with organisational procedures and regulatory guidelines, follow organisation's emergency procedures for accidents, fires or acts of unlawful interference, identify and recommend opportunities for</p> | <p>The job holder is expected to have factual knowledge of the field of repairing the Helicopter Transmission systems.</p> <p>For ex: The job holder is to have professional knowledge of relevant DIN/AGMA standards & procedures followed in the Company for manufacturing and also know the philosophy of power transmission from engine to blades via the transmission system. International standards for transmission system like the ZF/FAR-JAR standards/company systems-manuals like AS/environmental standards/procurement standards/design documents like stress, heat and mass transfer etc,different types of Spur/Helical Gears and Spline manufactured by the</p> | 4 |

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| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|--|---|--|------------|
| NSQF Domain | Key requirements of the job role | How the job role relates to the NSQF level descriptors | NSQF Level |
| | <p>improving health, safety, and security to the designated person, complete all health and safety records are updates and procedures well defined, identify damages in loaded parts and be able to check the documents for matching with the defined sop and drawings, refer to the process requirements as given in the standards, route books, and manuals, understand the Gleason spiral bevel gear system and its manufacturing techniques/manufacturing machines, study the process sheets/standard practices manuals / modification documents and evolutionary history of the transmission modules etc.,</p> | <p>company and the machines on which it needs to be machined and the special process for heat treat, surface treatments etc, process flow/routing of various components in the division and different facilities available for helicopter manufacture needs to be known etc.,</p> <p>Since all the above mentioned areas are commensurate to the level 4 professional knowledge, the role qualifies for Level 4.</p> <p>As the job holder required to possess professional knowledge higher than basic facts, processes in the field etc., therefore it cannot be pegged at level 3.</p> <p>The job role holder is to possess Knowledge about different types of machining processes carried out on Spur/Helical and Spline Gear Cutting, Broaching etc. different types of assembly/disassembly tools, special tools used for bearing pressing shim grinding machines, basic fundamentals of machines & mechanical sub-assemblies on helicopter and assembly -disassembly tools etc.,</p> <p>Therefore, it cannot be pegged at level 3 and ideally fit as a level 4 Job Role.</p> | |
| Professional skill | <p>The user/individual on the job needs to know and understand how to:</p> <p>make decisions on a suitable course of action or response if permitted by the authority matrix, plan, organise & prioritise the job received from the Production Manager, validate all the</p> | <p>The job holder is expected to recall and demonstrate practical skills in carrying out routine and repetitive activities in a narrow range of application, using appropriate rule and tools.</p> <p>For instance : plan, organise & prioritise the job received from</p> | 4 |

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| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|--|---|---|------------|
| NSQF Domain | Key requirements of the job role | How the job role relates to the NSQF level descriptors | NSQF Level |
| | <p>process/equipment manuals so that the final process selection is correct, support the supervisor in scheduling tasks for timely completion of the job, , communicate with stakeholders in a courteous manner, plan and organize work to achieve targets and deadlines, communicate with passengers and other stakeholders in a courteous manner, maintain cordial work relationship, identify trends/common causes for errors and suggest possible solutions to the supervisor / management, analyses best possible solutions (cost, time, effort, etc.) suited for operations, concentrate on task at hand and complete it without errors, apply balanced judgments to different situations, use common sense and make judgments during day to day basis, use reasoning skills to identify and resolve basic problems using 5S, persuade co team members to follow 5S etc</p> | <p>the Production Manager, validate all the process/equipment manuals so that the final process selection is correct, support the supervisor in scheduling tasks for timely completion of the job, analyse best possible solutions (cost, time, effort, etc.) suited for operations., etc</p> <p>These activities are mostly repetitive and have a narrow range of application, hence qualifying the role for a Level 4.</p> <p>As the job does not require to recall and demonstrate practical skill, routine and repetitive in narrow range application.</p> <p>For ex: recognise a work place problem or a potential problem and take action, determine problems requiring priority action, gather information and provide assistance as required to solve problems, refer problems outside area of responsibility to concerned person/ group etc.,</p> <p>Here the job holder has to use appropriate rules and tools to perform his role, this role does not fit at level 3 but at level 4.</p> | |
| Core skill | <p>The user/individual on the job needs to know and understand how to: complete accurately well written report in English language detailing the situations of emergency with attention to detail, read instructions/guidelines/procedures/rules, listen to and orally communicate information with all concerned, document the available information, note down observations in the given format, write information documents to concerned departments/teams under guidance of supervisor, enter the information in Inspection record sheets, relevant registers etc, read and interpret engineering</p> | <p>The job holder is expected to complete document the available information, note down observations in the given format, write basic level notes on technical features of the transmission modules, interpret basic level geometrical parameters from transmission assembly drawings and quality control charts, read instruction sheet/ work instruction drawings/ engineering drawings, sketches regarding transmission assembly modules,</p> | 4 |

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| Title/Name of qualification/component: Helicopter Transmission Technician | | Level: 4 | |
|--|---|--|------------|
| NSQF Domain | Key requirements of the job role | How the job role relates to the NSQF level descriptors | NSQF Level |
| | drawings, electrical wiring diagrams, flow charts, read and interpret engineering parameters, engineering data, engineering symbols, engineering specification, operation and maintenance manuals, effectively discuss and communicate regarding Targets, activities, processes etc with supervisor and co-workers, question Supervisor in order to understand the nature of problem, write basic level notes and observations, note down observations (if any) related to the process, write information documents to internal departments/ internal teams, read 5S instructions put up across the plant premises, effectively communicate information to team members inform employees in the plant and concerned functions about 5S, question the process head in order to understand the 5S related issues, attentively listen with full attention and comprehend the information given by the speaker during 5S training programs. | effectively discuss and communicate regarding Targets, activities, processes etc with supervisor and co-workers etc, it qualifies for Level 4. As the job holder requires core skills of language, written and oral to communicate with required clarity, read instructions/guidelines and communicate higher than requiring core skills of language, written and oral to communicate with minimum clarity, therefore it cannot be pegged at level 3. | |
| Responsibility | The helicopter transmission Technician is responsible for <ul style="list-style-type: none"> Follow safety and security procedures Performing Helicopter Transmission Assembly Operations Maintain 5S at the work premises | The job holder is responsible for only own work and learning. S/he is a skilled worker who carries out work activities of Follow safety and security procedures, Performing Helicopter Transmission Assembly Operations and maintain 5S at the work premises. Hence, this role qualifies for Level 4. It does not comprise of any supervisory activities As this job is about having responsibility for own working and learning and is not working under close supervision within defined limits. Therefore, it cannot be pegged at level 3. For ex: performing helicopter transmission assembly operations check for proper rotational drag/positive wire locking /line replaceable units' installation/slippage marks/wpc application on the modules needs to be understood etc., Therefore it cannot be pegged at level 3 | 4 |

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SECTION 3

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

- Feedback from the industry was collected with respect to the past and projected industry growth, projected employee growth and Industry requirement is 6
- During the industry interactions carried out while creating occupational maps and prioritisation of job roles for QP development, the mentioned qualification was indicated as a key requirement by the industry. The expert group / Subcommittee of QP-NOS shared the final approval for the development of the role. The Qualification has been validated by leading associations and companies like such as MRO Association of India , Air India Engineering Services Ltd, Hindustan Aeronautics Ltd, GMR Aero Technic Ltd, Airworks, Aman Aviation , Varman Aviation, Haveus Aerotech
- In addition, various skill reports project the demand of the skilled workforce and the projected industry growth of the Aviation industry in India.
- Demand assessed through Industry – Stakeholder interaction.
- Evidence of the qualification is supported by validations. The complete list of validating companies has been enclosed as an annexure to the Q- File.

What is the estimated uptake of this qualification and what is the basis of this estimate?

- Occupation Map and Industry feedback for the skill gap between the industry demand and institutional supply provide the basis for estimated uptake. This is the basis for planning training with the industry and training providers.
- Estimated No. of people for this job role is 816 until the year 2025

What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF?

- The qualification discussed above is checked for any duplication across sectors. Given the qualification is niche to Airline sector, there is no duplication or pre-existing qualifications.
- The QP has been compiled keeping in mind the industry requirements and review existing QP-NOS

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Employee & employer feedback will be sought after placement.
- A review will happen after three-year period, the comments and feedback after which will be incorporated in the next/updated QP NOS.

Please attach any documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

SECTION 4

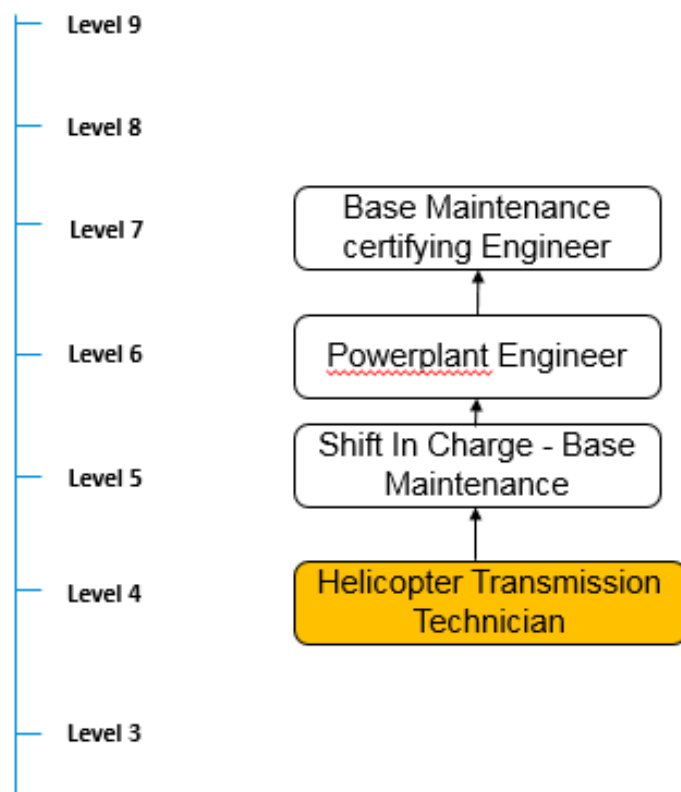
NSQF QUALIFICATION FILE GUIDANCE

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EVIDENCE OF PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

- While designing the National Occupational Standards, occupational mapping was done on a large sample size and validated across the country. The career progression for roles in each occupation was also analysed and decided, based on industry validation across the country. The current challenges faced by the industry, at large was also kept in mind.



Please attach any documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

Give details of the document(s) here:

Annexure 1 : Career path of Helicopter Transmission Technician in **AASSC_QRC presentation_final_MRO.ppt**

Annexure 2: QP- NOS : **AAS/Q2004_ Helicopter Transmission Technician**

Annexure 3 : Refer Folder- **Skill Demand Reports.**

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