

NAMIBIA SENIOR SECONDARY CERTIFICATE

MOTOR MECHANICS ORDINARY LEVEL

6189/2

PAPER 2 Practical Examination

2022

INSTRUCTIONS TO SUBJECT TEACHERS

This document consists of **8** printed pages.



Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

Instructions for the Motor Mechanics Practical Examination Invigilator

A Assistance to candidates

The purpose of the Motor Mechanics practical examination is to assess the candidates' ability to apply their skills related to practical work. This is done by requesting the candidates to perform practical skills in the workshop. Therefore, the candidates' ability to do practical work should not be hindered by the failure of tools, machines and materials. In order to overcome difficulties that candidates might experience during the practical examination, the invigilator should (or allow the Motor Mechanics teacher to) assist candidates in cases where equipment is malfunctioning or materials are not giving the expected results. Teachers should test the equipment like tools and machines regularly in advance.

The following regulations must be strictly adhered to.

- Candidates will wear approved Personal Protective Equipment (PPE) for the duration of the test.
- The use of cell phones are strictly prohibited.
- A candidate who is unable to proceed and require assistance must inform the invigilator and state the difficulty.
- A report must be written of any assistance given to a candidate with the Candidate Name and Candidate Number.
- The test may be terminated by the invigilator if candidate demonstrates a lack of competency that may result in physical injury or mechanical damage.
- No assistance may be announced to the whole class.
- Candidate will clean work area, tools and equipment after completion of tasks.
- Candidate will return tools and equipment after use.

B Number of sets of tools and machines

Each work station should have enough equipment for one candidate at the beginning of each practical session. Candidates are not allowed to share equipment unless stated differently in the equipment list. It is advisable to have a few spare sets to avoid candidates from being delayed due to disfunctional equipment.

C Specifications sheet

Each Motor Mechanics Teacher should provide engine specific specifications, as well as a piston similar to the pistons used in the specific engine.

Part A: Planning

Answer the question.

Total time for completing Part A will be 40 minutes.

You are required to replace a piston that was damaged. You are given a replacement piston, and you have to determine whether the clearance between the replacement piston and the cylinder wall is within the manufacturer's specifications.

In this task you will demonstrate your ability to take the required measurements, and calculate the piston to cylinder wall clearance.

- 1 Give a step-by-step layout of your work plan to carry out these measurements.
- 2 List all the tools you will need to carry out these measurements.

Part B: Practical (Realisation)**1 Cylinder Bore Measurement**

Measuring point	1	2	3	4
X – axis				
Y – axis				

- 2 Position Diameter Measurement
- 3 Position to cylinder wall clearance

Part C: Evaluation

- 1 State the usability of the replacement piston with regard to the measurements obtained, and compared to the manufacturer's specifications.
- 2 Discuss the effect the difference of measurements in the cylinder will have on the performance of the engine.
- 3 Give a reason for the answer in question 2 above.
- 4 Make a recommendation based on your findings on how to maintain good engine performance.

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REPORT FORM
Republic of Namibia
NAMIBIA SENIOR SECONDARY CERTIFICATE

MOTOR MECHANICS ORDINARY LEVEL

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PAPER 2 Practical Examination

Question Paper & Examination Security Declaration

Region.....Date.....

Centre Number.....Centre Name.....

Principal (full name, print).....

Head of Examination Centre (full name, print).....

Hereby it is certified that this examination was conducted under appropriate measures and conditions as stipulated in the 'Rules & Regulations for the NSSC Examinations'.

Attached are the following details;

1 Subject Teacher's Results

*Please submit details of the readings obtained in **Part B** on a Motor Mechanics Practical examination assessment summary form showing the candidate's information.*

*It is essential that each packet of candidates' scripts contains a copy of the applicable **Subject Teacher's Results** as the candidates' work cannot be assessed accurately without such information.*

2 The Candidate Numbers of candidates attending each session were:

Please write them in their sitting order.

First Session	Second Session	Third Session

INSTRUCTIONS FOR COMPLETING PRACTICAL ASSESSMENT SUMMARY FORM

- 1 Complete the information on top of the form.
- 2 List the candidates in an order which will allow ease of transfer of information to a computer-printed practical mark sheet MS1 at a later stage (i.e., in candidate index number order, where the list is known; see item B.1 below). Show the teaching group or set for each candidate. The initials of the teacher may be used to indicate a group or set.
- 3 Transfer each candidate's marks to this form as follows:
 - (a) Where there are columns for individual skills or assignments enter marks initially awarded (i.e. before internal moderation has taken place).
 - (b) In the column headed 'Total Mark', enter the total mark awarded before internal moderation has taken place.
 - (c) In the column headed 'Internal Moderated Mark', enter the total mark awarded after internal moderation has taken place.
- 4 Both the teacher completing the form and the internal moderator (or moderators) should check the form and complete and sign the bottom portion.
- 5 Photographic evidence should be attached to each candidates' question paper.

Motor Mechanics Practical Examination Assessment Summary Form (NSSCO)

Please read the instructions printed overleaf before completing this form.

Centre number	Centre name			Teaching group/ set	Part A Planning (max 20)	Part B Realisation (max 20)	Part C Reflection (Evaluation) (max 10)	November		Internally moderated mark (max 50)
								2	0	
Candidate number	Candidate name									
Name of teacher completing this form				Date						
Name of internal moderator				Date						