

Grader

A19

Technical Test – Practical

RESOURCES

Required

Machine	<ul style="list-style-type: none"> • Grader with centrally-mounted blade
Area	<ul style="list-style-type: none"> • Ground, clear of hazards which must include: <ul style="list-style-type: none"> – level area for grading activities – rough terrain – slope or slopes – bank of suitable material
Other equipment	<ul style="list-style-type: none"> • Items to create restrictions for manoeuvring • Laser equipped measuring equipment to ensure earthmoving specifications are met
Notes	<ul style="list-style-type: none"> • The machine selected for the test must be in serviceable condition and conform with current legislation • The operator's manual must be with the grader • The level area must be at least 30 metres in length and 3 x the blade width • The bank must be at least 15 metres in length • The slope must have at least an 18% (1:5.5) incline with sufficient manoeuvring room at the top, or a straight ramp with an up and down route with a flat area at the summit

ACTIVITY

Instructions

Sequence	<ul style="list-style-type: none"> • Activity 1 must be undertaken at the start of the test • Activities 2, 4 and 5 can be undertaken at any time during the test • Activity 7 must be undertaken at the end of the test <p>The test must be completed within a given time. The specifications' section gives further information.</p>
Preparing for work	1. Complete all manufacturers' pre-start and running checks and prepare the grader for travel
Travelling & manoeuvring (refer to specifications)	2. Travel to the work area and: <ul style="list-style-type: none"> – travel up and down the slope – pass through a restriction – travel over rough terrain
Setting up for work	3. Prepare and set the grader for the relevant work
Working tasks (refer to specifications)	4. Trim the bank to an agreed angle 5. Grade and level an area to specification 6. Reinstate the work area to level
Shutting down	7. Park the grader and carry out shut-down and securing procedures
Notes	<ul style="list-style-type: none"> • If the machine is hot, checks unable to be carried out (i.e. coolant) may be assessed by the Tester using verbal questions

Activity measurements

Travel restrictions	<ul style="list-style-type: none"> • 800 mm
Bank grading	<ul style="list-style-type: none"> • 15 metres minimum to ± 35 mm
Level grading	<ul style="list-style-type: none"> • 30 metres in length and 3 x the blade width to ± 35 mm
Test timings	<ul style="list-style-type: none"> • The test must be completed within 1 hour and 45 minutes

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Basic details	Test ref.	Candidate name
	Tester name	Candidate ref.
	Tester ref.	Date of test
	Make and model	Start time of test
		Duration

MANDATORY		Correctly carried out during the test?	Y / N
Preparing	1 All pre-start and running checks (or responses to relevant questions)		
Travelling	2 Grader set for travel		
	3 Restrictions cleared		
	4 Encountered hazards cleared		
Setting up	5 Control maintained when ascending and descending inclines		
	6 Allocated area checked and clear of hazards prior to grading		
Working	7 Grader set for required work		
	8 Mouldboard set to required position for banking and level work		
	9 Bank profile constant and met given specification and tolerances		
	10 Level area graded and conformed to the stated sizes and tolerances		
Shutdown	11 No contact between mouldboard and machine		
	12 Excavated area reinstated to level		
Other	13 All shut down and securing procedures		
	14 Legislation, manufacturers' and health and safety requirements complied with		
	15 Test completed within the given time		
All of these items must be awarded			Achieved / Not achieved

FAULTS		Candidate incorrectly carried out the following:	Fault	Mark	Penalty
Travelling	1	Grader mounting and dismounting		1	
	2	Full observation before moving and reversing		3	
	3	Full observation whilst travelling		2	
	4	Mouldboard within machine confines when travelling		1	
	5	Travel speed matched to the ground type and conditions		1	
Working	6	Mouldboard lowered whilst moving		1	
	7	Area graded in layers		2	
	8	Feathering out at the end of the cut		2	
	9	Smooth use of steering/braking/hydraulic controls		2	
	10	Sequence of steering/braking/hydraulic controls		1	
Not exceeded 8 penalties			Total penalties		
					Achieved / Not achieved

