CONSTRUCTION
Training Group

LEARNER GUIDE

Profile Planer/Profile Planer Leading Hand (PS/PSL)

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Assessor Guidelines – General

1. **Introduction**
1.1 Scope
As the Assessment Instruments follow the guidelines set down by the National Guidelines for Occupational Health and Safety Competency Standards for the operation of Loadshifting and Other Types of Specified Equipment, Assessors should be familiar with the publication.

1.2 Evidence of competency
Evidence of competency is established in number of ways. The method used in the following instrument involve:
• assessment of practical performance
• written and or/oral answers to questions on underpinning knowledge

2. Prepare for the assessment
2.1 Study the instrument
You need to read the assessment instrument and specific instructions carefully before beginning the assessment.

2.2 Confirm appointments
Prior to the assessment, you need to confirm the date, time and location of the assessment with the applicants and any other revenant people.

2.3 Equipment availability
The availability of equipment, materials and a suitable working area must be organised and confirmed, prior to the assessment.

2.4 Workplace factors
Because procedures vary greatly between workplaces, it is important for assessors to plan their approaches to meet the requirements of individual workplaces.

Make sure you take the time frame into account when planning the assessment and also make applicants aware of any time limits.

2. 5 Selecting questions
Questions for the written/oral assessment should be randomly selected, either by hand or using the computer system, if applicable.

3. **Conducting the assessment**
3.1 Provide an explanation
Begin by explaining clearly to the applicant what is required of them. Check that the applicant has provided (or have been provided with) the necessary tools and equipment.

3.2 Practical performance
Complete the performance checklist, as the applicant works through the required tasks. Wherever possible, this should be done in the normal working environment. Do not ask the applicant questions while he or she is performing a task, as this can distract, and may affect the time taken to complete the assessment.

If, at any time the applicant is endangered himself/herself or others, stop the assessment immediately.

This indicates that the applicant is not yet competent and may require further training, before being reassessed.

Assessments should be stopped, if equipment or property are likely to be damaged.

3.3 Knowledge
The knowledge assessment covers both oral and written exercises. The model answers provided with the knowledge assessment instruments are not necessary exhaustive. Use your own judgement when scoring alternative answers.

3.4 Recording responses
Each item and question on the assessment form you use is accompanied by a box. Assessors must complete every box as follows:

✓	CORRECT PERFORMANCE/ANSWER
X	NOT YET ACHIEVED
NA	NOT APPLICABLE
O	ORAL ASSESSMENT
S	SIMULATED ASSESSMENT

If a box is marked incorrectly, cross out the mistake, mark the correct response alongside, and initial the change.

4. Determining competencies
4.1 Assessment summary
A specific assessment summary is given for each equipment class. This is to be filled in and signed by the assessor, and countersigned by the applicant.

The original and duplicate is given to the applicant. The applicant provides the original to the certificating authority. The triplicate remains with the assessor.

4.2 Competency requirements
In order for you to deem an applicant competent, he or she must have completed each section of the assessment to the standard required. You should note any time constraints when arriving at your decision.

The standard required in each instrument is specified in the specific guidelines and/or On the summary page at the end of each assessment.

4.3 Additional comments
Where an applicant fails to meet the standard of competency, you should add a written comment on the Assessment Summary, which briefly explains the problem.

Advice to the applicant, on the appropriate remedial action should also be included. This will also assist the certificate assessor, in the event that the applicant undergoes further reassessment.

Likewise, if an applicant demonstrates outstanding or remarkable performance, this should be noted.

4.4 Further investigation
As a certificate assessor, it is your role to determine whether or not an applicant has achieved the standard necessary for the certificating authority to be able to grant a certificate of competency.

Whenever you are unsure of the applicant's performance or knowledge ask additional questions, and obtain additional evidence, before making your decision.

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Guidelines for OHS Competency Standards

Profiler Safety

PERFORMANCE ASSESSMENT

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Assessor Guidelines – General

1. The assessment requires the operator to check the equipment, plan the work and to safely and competently operate the Profiler.

The assessment is performed in three sections:

1.1 Conduct routine pre-operational check on Profiler.

1.2 Inspect the site and plan the work.

1.3 Conduct pre-operational and post start up checks on the Profiler.

2.1 Drives the Profiler to the work area.

2.2 Planes ground surfaces.

3.1 Shut down the equipment and secure the site.

2. The performance assessment can be conducted at any location which has:
• Sufficient clear space to operate the machine
• Ground suitable for planing.

4. Equipment and Resources Required:
- A Self Propelled Profiler.
- Suitable site on which to use the Self Propelled Profiler.

4. Unless other arrangements are agreed to by the assessor, it will be the responsibility of the applicant, applicant's employer or trainer to provide the required equipment and resources.

6. To be assessed an applicant must wear:
• Safety helmet (where required)
• Appropriate footwear
• Other protective clothing and equipment as appropriate

6. The performance of each applicant is to be recorded on the assessor's checklist.

7. Safety of personnel:
When an applicant is working dangerously, recklessly or without the necessary coordination, the assessor must direct the applicant to cease work and terminate those parts of the assessment immediately.

8. The items in the shaded boxes are of critical importance. Failing to get any of these correct means that competency has not been achieved and the applicant must be failed.

9. In cases where critera cannot be physically performed thje applicant is required to demonstrate his/her understanding of these criteria by answering relevant questions orally, or by simulation.

The type of answer provided is to be shown on the assessment sheet as:

O	Oral Assessment
S	Stimulated Assessment
N/A	Not Applicable

10. Where an applicant as 'not yet competent' he/she must be informed of the reason(s) for the failure in order to gain further appropriate training.

11. The full performance assessment can take up to 40 minutes.

13. The applicant's competence in each unit is to be summarised for both performance and knowledge on the summery sheet. Competency is achieved for a unit when the required number of boxes for the unit have been ticked or marked "O", “S”, or "N/A".

Overall competency is achieved when all competence in all units has been assessed.

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CONDUCT ROUTINE CHECKS:

1.1 Routine checks on vehicle/equipment:

- ~~Tyre condition and Inflation, condition of wheels~~
- Track Condition

Checks liquid levels -

- fuel
- hydraulic oil
- engine oil
- battery
- coolant
- Transmission
- Water (Dust Suppressant)

Checks equipment for defects -

- Damaged, worn or broken parts
- loose nuts, bolts and couplings
- hoses and fittings
- connections for missing pins or keepers
- grease holes and grease pins
- Safety guards and covers
- Warning Signs
- Ground engagement tools for wear
- Conveyors
- Sensor Units
- Air cleaner/Pre-cleaner

PLAN WORK AND CHECK EQUIPMENT:

1.2 Inspects site and plans work:

Identify Hazards -

- Soft and sloping edges
- Rough/uneven/unstable terrain
- Service Drains
- Inclines/declines
- Underground services/Hazards
- Services eg power, gas
- Plant, Personnel
- Obstructions
- Wet Slippery conditions
- Restricted operator vision area
- Aware of material type to be planed

Access and path of movement is indicated -

- to work area
- for work

Appropriate equipment for the task -

- equipment is appropriate for the task

OPERATIONAL CHECKS:

1.3 Conducts pre-operational and post start-up checks in accordance with manufacturer's specifications/ operating manual:

- mounts correctly
- adjusts seat, secures safety belt (If applicable)
- in neutral, park, start position
- warning device
- personnel clear
- starts engine
- gauges, warning lights
- attachment movement
- braking system
- sensor units attached
- steering

DRIVES UNIT:

2.1 Drives to the work area:

- Mainframe level
- Selects appropriate route
- Ensures travel direction clear
- Travels at safe speed
- Obeys road and warning signs

2.2 Planes surface:

- Maintains safe distance from edge as directed by supervisor, site instructions, signing or barricades
- Positions Profiler in correct position for planning
- Aware of obstructions
- Conveyor in position

- [ ] Trucks in position, if applicable
- [ ] Turns water on
- [ ] Starts conveyor
- [ ] Turns sensors on
- [ ] Lowers cuter to specific depth
- [ ] Cutter lowered slowly into cut (Profile may directionally jerk if this is not carried out)
- [ ] Aware of plant/personnel
- [ ] Moves off safely
- [ ] Checks depth of cut after moving off
- [ ] Maintains specified engine RPM
- [ ] Maintains a straight line
- [ ] Works to a pattern
- [ ] Checks rear conveyor for position
- [ ] Notifies truck that is loaded
- [ ] Signals are interpreted and observed
- [ ] Checks area clear before reversing

- [ ] Cleans tracks/wheels, cutter, conveyor (If Applicable)
- [ ] Checks ground engaging tools

SHUTS DOWN EQUIPMENT AND SECURES SITE:
3.1 Shuts down equipment and secures site:

Parks equipment -

- [ ] Parks away from danger areas and in a suitable location
- [ ] Attachments lowered to ground

Shuts down equipment -

- [ ] neutralises controls
- [ ] Sets parking brake/safety lock applied
- [ ] As per Operation Manual
- [ ] Moves controls to release pressure
- [ ] Removes keys
- [ ] Locks cabin and access covers (If applicable)

Post operational Check -

- [ ] Minor servicing
- [ ] Checks and reports any damage

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Guidelines for OHS Competency Standards

Loadshifting Equipment

Profiler Safety

ORAL/WRITTEN ASSESSMENT

Assessor Guidelines – Specific (Knowledge Assessment)

1. Knowledge assessment for Profiler is divided into three units.

2. To satisfy the requirements for competency the applicant must correctly answer (either in writing or orally) the specified number of questions in each of the following sections:

If the assessment is conducted orally, the assessor must record the answers provided by the applicant

1.1 Conduct routine checks
Select 10

1.2 Plan work
Select 10

1.3Check controls and equipment
Select 2

2.1 Drives unit
Select 7

3.1 Shut down equipment
Select 3

3.2 Secure site
Select 1

4. The full knowledge assessment of thirty three (33) questions can take up to 1 hour.

5. The items in the shaded boxes are of critical importance. Failing to get any of these correct means that competency has not been achieved and the applicant must be failed.

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CONDUCT ROUTINE CHECKS
Performance criteria 1.1.1
(select 10 including all with a shaded box)

1. What should be the first check of your Profiler at the start of your shift?

☐ *Pre Start checks, walk around it looking for visual defects*

2. What precautions must be taken when an inspection or work has to be performed under a raised body or a crush point area?

☐ *Props or Bars, provision provided to prevent personnel from being injured by striking or crushing.*

3. Name three defects that you would look for when conducting a routine check on the hydraulic system of the Profiler.

☐ *Hydraulic oil leaks, loose connection and hoses for splits, fractures or bulges*

4. Name five pre-operational checks that should be carried out on the load shifting equipment before the unit is started.

☐ *Radiator, battery, fuel, oil, hydraulic lines, ~~tyres or~~ tracks, structure etc.*

5. What warning device must function on the Profile to warn personnel that the Profiler is to travel or is travelling in reverse?

☐ *A reverse warning device, Beeper or squawker*

~~6. If an air system is installed on the Profiler what daily action would you take with condensation in the air receiver.~~

~~☐ *Drain the water from the tank*~~

6. How would you know when to replace the cutters on the profiler?

☐ *Once the cutters had reached the wear markers*

7. What problem could be indicated by bubbles or milky engine oil in the sump?

☐ *Water leaking into the sump*

8. Why shouldn't the hydraulic oil storage tank be filled above the filled mark?

☐ *Space in the tank is needed for displacement in the system*

9. When changing a battery which battery clamp should be removed first?

☐ *The earthed battery clamp*

10. Name two checks that you would carry out on the sensor unit?

☐ *Confirm measuring accurately, Mounted correctly, connections tight*

11. What should be provided on the Profiler to prevent the operator from being dislodged from the seat?

☐ *If applicable, a safety belt*

12. How would you remove the radiator filler cap of a Profiler that has not completely cooled off?

☐ *Wait until cooled or Slightly loosen cap to release pressure and then slowly remove cap*

~~13. Why shouldn't tyres be checked when they are still heat effected from travelling?~~

~~☐ *The pressure in the tyres would be increased by the heat*~~

13. What needs to be done if you need to access the drum of the profiler?

☐ *The needs to be shut done and isolated and the access door must be locked in place*

14. How would you establish that pre-start checks have been carried out?

☐ *By recording relevant information on to the daily operator's check sheet*

15. How would you establish the service and the frequency of the service to be carried out on the machine you are required to operate?

☐ *By the service manual provided by the manufacturer*

16. To establish if the required service has been conducted what document would you refer to?

☐ *The log book/service sticker*

17. When should ground engagement tools be checked for wear?

☐ *At least four times daily. In hard conditions, more regularly.*

PLAN WORK
(select 5 including all shaded boxes)

18. What is the danger of travelling near the edge of the fill with a ~~scraper~~ profiler?

☐ *The edge fill may collapse, profiler could tip or roll over, injury to operator*

19. If there is a likelihood of the Profiler being overturned what must be provided on the Profiler to protect the operator?

☐ *A roll over protective structure and seat belts*

Not sure what to put here 99% of profilers don't have ROPS or Seatbelts

20. When should ear protection be worn?

☐ *Where the noise could contribute to the loss of hearing ie over 85DB*

21. When should a person wear a safety helmet?

☐ *Where the person could be struck on the head*

22. What is the minimum type of footwear that an operator should wear to operate a Profiler?

☐ *Safety boots ie Steel capped Non-slip footwear ~~that encloses the foot~~*

23. What would you refer to in order to establish the location of underground services?

☐ *Dial Before You Dig, Supply authority or council maps, project plans, metal detector*

24. If you accidentally damaged an underground electrical cable who would you immediately contact to render the power supply safe?

☐ *The electrical supply authority*

25. What should be provided to prevent a person falling into a trench or excavation?

☐ *Barricades or guardrails or fencing*

26. How should the flow of road traffic be controlled where signs and barricades are considered inadequate to control a potential hazard?

☐ *By a traffic controller or by a Police officer*

(select 2 including all shaded boxes)

27. Describe why the Profiler operator must be alert when cutting asphalt.

☐ *The physical properties of asphalt vary with ambient temperature eg.*
- *a) When cold it is hard and may break off in large pieces*
- *b) When warm it is soft and can create a drag on the cutter*

28. Which is the preferred route of travel, diagonally across or directly down a sloping surface?

☐ Directly down the sloping surface

29. What gear should be selected to travel down a steep sloping surface?

☐ *A low gear. The gear required to climb the sloping surface*

(select 3 including all shaded boxes)

30. In hazardous working areas where permission is required to work what must the operator ensure before the work is commenced?

☐ *That the required permits have been obtained*

31. What is required to be obtained before unregistered ~~rubber tyred~~ loadshifting equipment is driven along a public road?

☐ *An unregistered vehicle permit*

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32. What government licence do you require to drive a ~~rubber tyres~~ ~~scraper~~ profiler on public road?

- [ ] ~~*A class licence for plant up to 4.5 tonnes and C class licence for plant over 4.5 tonnes or other jurisdiction as applicable. ie Australian heavy vehicle*~~ *Appropriate State licence*

33. Is it permissible to carry passengers on a Profiler?

- [ ] *No, only if there is approved seating and seatbelts*

34. How would you establish the capabilities and limitations of the equipment?

- [ ] *Operators manual or By information provided by the employer and documented by the manufacturer*

1.3 Check controls and equipment (select 2 including all shaded boxes)

35 What action would you take with damage and defects found on the machine?

- [ ] *Don't use it, Tag it out, Report it.* ~~*Report the damage and defects to the authorised person or to site requirements and refrain from operating if a danger exists*~~

36. What controls would you test to ensure that the Profiler can be slowed and stopped?

- [ ] *The braking control system pedals and levers*

37. On the start up check you notice a bulge form in a hydraulic hose. What action would you take?

- [ ] *Don't use it, Switch off the machine and have the hose replaced.*

38. When should tests, checks and inspections be made by the operator on the loadshifting equipment that is to be operated?

- [ ] *Daily before use*

2.1 Drive Unit
(select 3 including all shaded boxes)

39. Applicant to state the meaning of the hand signal of "stop" demonstrated by the examiner

- [ ] *Raised palm means Stop operating*

40. How would you dismount a machine that contacted live power lines?

- [ ] *Jump clear ensuring contact with the ground and machine is not at the same time, shuffle away approx 10m*

41. When travelling what would you do before travelling down a steep grade?

- [ ] *Reduce speed* ~~*with service brake or retarder and*~~ *select the appropriate gear for the grade*

42. Before reversing a machine what precaution should be taken?

- [ ] *Ensure the direction of travel is clear*

(Select 4 including all shaded boxes)
43. Would you coast the Profiler downhill?

- [ ] *No*

~~44. With an air braking system what effect does fanning the brake control instead of a firm application of the brake control have on the air pressure for the brakes?~~

- [ ] ~~*Fanning may exhaust the pressure faster than the compressor can replace it*~~

44. What should be fitted to the profiler in case of emergency?

- [ ] *Emergency stop button*

45. Why is it important to obey signals and directions of the spotter?

- [ ] *Ground personnel may have better vision around the Profiler than the operator*

46. Describe why the cutter must be lowered slowly into the cut.

☐ *The profiler may jam and directionally jerk causing injury to personnel*

47. Why is it important to check the depth of cut after moving?

☐ *To ensure that the specified cut depth is correct*

48. Why is it important to check the conveyor when loading trucks?

☐ *To check that load is being evenly distributed, to advise the truck is loaded*

49. As an operator would you leave an unattended Profiler engine running?

☐ *No*

3.1 Shut down equipment
(Select 3 including all shaded boxes)

50. Name three areas where you would not park the Profiler.

☐ *Access ways, near overhangs, refuelling sites, tidal or flood areas, adjacent to an excavation*

51. Which direction should the Profiler face if it has to be parked on a sloping surface?

☐ *Across the slope*

52. Where possible what type of surface should be selected to park the Profiler on?

☐ *A firm level surface*

53. When leaving the Profiler what should be done with attachments?

☐ *Attachments lowered, pressure removed from hydraulic lines, or safety bars/props in place if the attachment is to be left in a raised position*

54. What post-operational checks should be carried out by the operator at the end of shift?

☐ *Check the equipment for defects, damage and wear, check fluids and refuel.*

55. Describe why ~~wheels/~~tracks, cutter, conveyor should be cleaned at end of days operation.

☐ *So that any residue of asphalt etc ~~will~~ doesn't set overnight and present a problem.*

3.2 Secure Site
(Select 1)

57 What shall be provided when a Profile has to be parked on or protrudes onto an access way?

☐ *Barricades, lights and signs*

58 For what reason should the key be removed from the ignition of the machine?

☐ *To prevent unauthorised movement*

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Assessment Summary
Profiler

Unit	Form of Assessment	Total No of Boxes in the Assessment	No of boxes given ✓ or N/A	No of Boxes required to meet standard	Were all critical boxes given ✓ or N/A?		Assessment standard requirements achieved*		
	Performance	44		33	Yes	No	Yes	No	
1	Knowledge	22		16	Yes	No	Yes	No	
	Assessment completed within time allowed						Yes	No	N/A
	Performance	25		19	Yes	No	Yes	No	
2	Knowledge	7		5	Yes	No	Yes	No	
	Assessment completed within time allowed						Yes	No	N/A
	Performance	12		9	Yes	No	Yes	No	
3	Knowledge	4		3	Yes	No	Yes	No	
	Assessment completed within time allowed						Yes	No	N/A

* Performance Standard = Number of items required to meet standard (including all critical boxes)
Knowledge Standard = Number of questions required to meet standard (including all critical boxes)

Summary

Candidate is:
(circle the result obtained)

- Competent
- Not Yet Competent

Date: .....

Name of Assessor: ..... Name of Candidate: .....

Signature: ..... Signature: .....

Comments/Feedback
(Assesors to make any additional comments which clarify the assessment)

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Appendix A: Profiler Safety, Level Hand Assessment PSL

This section of the assessment instrument is to be used when assessing operators on a large road profiler where two operators running the unit and are required to perform the work duties of profiler operator and level hand.

3.1 Level Hand Responsibilities (Select 10 including all shaded boxes)

1. How are the perimeters of the work site defined?

☐ *By liaising and confirming work with the client*

2. What must be on site before commencement of work?

☐ *All specifications, plans, plant and equipment*

3. *Why is a visual check carried out on plant and equipment?*

☐ *To ensure that all plant is in safe working order*

4. Why before commencement of work must relevant traffic control be checked?

☐ *To ensure that it is in place to provide a safe work site*

5. Describe what obstructions must be marked on the work site to prevent damage to the profiler.

☐ *Pits, plugs, static covers and all other obstructions that may cause machine damage*

6. At what distance must unauthorised personnel be kept from the machine?

☐ *8 Metres where does this come from?*

7. Describe what instructions you would give to the operator when commencing the job.

☐ *- Where the job is to start and finish*
- Depth and width of cut required
- When to move forward

8. Who has responsibility to set the depth of cut on machine before it is lowed into ground?

☐ *The Level Hand*

9. At what intervals are levels checked (Approx.)

☐ *Every three metres or as specified*

10. Describe what you would be checking whilst the machine was in operating mode.

☐ *Depth, hazards, potential damaged parts, noisy bearings, sensor units, conveyor.*

11. Why is it important to check in front of the machine at regular intervals?

☐ *To identify soft areas where the machine could sink or bog down*

12. At completion of cut what instructions do you give to the operator?

☐ *When to stop cutting and the next area to be plane, if another cut is required*

13. Why is it important to keep in the operator's line of sight?

☐ *To ensure that the operator knows of your location at all times to avoid being run over*

14. Describe your obligations to contractors on the work site

☐ *Instruct all personnel, to keep clear at all times*
To wear the appropriate Personal Protective Equipment
To be aware that the profiler can lunge in either direction causing serious bodily or fatal harm.

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Assessment Summary

Unit	Form of Assessment	Total No of Boxes in the Assessment	No of boxes given ✓ or N/A	No of Boxes required to meet standard	Were all critical boxes given ✓ or N/A?		Assessment standard requirements achieved*	
	Performance	10		8	Yes	No	Yes	No

Profiler Safety – Level Hand Assessment

* Performance Standard = Number of items required to meet standard (including all critical boxes)
Knowledge Standard = Number of questions required to meet standard (including all critical boxes)

Summary

Candidate is:
(circle the result obtained)

- Competent
- Not Yet Competent

Date: .....

Name of Assessor: ..... Name of Candidate: .....

Signature: ..... Signature: .....

Comments/Feedback
(Assesors to make any additional comments which clarify the assessment)

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