



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Tracked Dozer Operation Skills For Construction Training

Physical Planning and Construction / Civil Engineering Construction

Unit Standard 116058 · NQF Level 2 · 24 Credits · 21 Days

COURSE OVERVIEW

This course equips learners with the skills and knowledge required to operate a tracked dozer safely and effectively in construction environments. It covers pre-operation checks, operational techniques, and safety protocols to ensure compliance with industry standards and reduce workplace incidents.

Category	Physical Planning and Construction
Subfield	Civil Engineering Construction
Unit Standard	116058
Accreditation	SAQA Accredited · NQF Level 2 · 24 Credits
Duration	21 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Demonstrate knowledge of tracked dozer components, controls, and safety features.
- Apply pre-operation inspection procedures and identify potential hazards.
- Operate a tracked dozer for basic earthmoving tasks including dozing, spreading, and backfilling.
- Implement safe operating practices and respond to emergency situations.
- Evaluate site conditions and adjust operational techniques accordingly.
- Perform routine maintenance and shutdown procedures in line with manufacturer guidelines.

WHO SHOULD ATTEND

- This course is intended for construction workers, plant operators, and supervisors who need to operate tracked dozers on construction sites or wish to formalize their skills with a recognized qualification.

COURSE OUTLINE

Day 1: Introduction to Tracked Dozer Operations and Safety

- Overview of tracked dozer applications in construction.
- Health and safety legislation (OHS Act, construction regulations).
- Personal protective equipment requirements.
- Machine familiarisation: engine, undercarriage, blade, ripper.
- Operator's manual and controls introduction.
- Pre-start inspection procedures.
- Daily logbook and reporting.

Day 2: Machine Systems and Basic Operation

- Engine and cooling system basics.
- Hydraulic system components and functions.
- Powertrain: torque converter, transmission, final drives.
- Electrical system and instrumentation.
- Pre-start walk-around checklist.
- Starting and warming up the engine.
- Steering and braking controls.
- Straight-line travel in forward and reverse.

Day 3: Blade Control and Basic Earthmoving

- Blade control functions: lift, tilt, angle, pitch.
- Blade types: straight, semi-U, U-blade.
- Dozing technique: cutting, carrying, spreading.
- Maintaining blade depth with float position.
- Level dozing on level terrain.
- Safety around blade operations.
- Common errors and corrections.

Day 4: Steering and Manoeuvring Techniques

- Steering systems: clutch-brake vs. differential steer.
- Pivot turns, counter-rotation, and gradual turns.
- Manoeuvring in confined spaces.
- Forward and reverse directional changes.
- Steering on side slopes.
- Avoiding track slippage.
- Practical exercises on marked courses.

Day 5: Dozing Techniques – Cutting and Filling

- Excavation dozing: slot dozing, side-by-side dozing.
- Fill dozing: spreading and compacting.
- Soil identification: cohesive, granular, rock.
- Adjusting technique for soil moisture.
- Grade control using blade and visual references.
- Working with survey stakes.
- Practical exercise: cut and fill a defined area.

Day 6: Ripping Operations

- Ripper types: single shank, multi-shank.
- Ripping patterns: parallel, cross-ripping.
- Depth and speed selection.
- Ripping rock and hard clay.
- Ripper maintenance and wear.
- Combining ripping and dozing for efficiency.
- Safety during ripping operations.

Day 7: Working on Slopes and Grades

- Slope safety: stability, tipping lines.
- Uphill dozing techniques.
- Downhill dozing and braking.
- Side slope operation: blade positioning.
- Grade control using laser or string line.
- Cut and fill on slopes.
- Practical exercise: create a ramp at 3:1 slope.

Day 8: Dozer in Tandem Operations

- Tandem dozing benefits and risks.
- Push-pull techniques.
- Communication protocols: hand signals, radios.
- Spacing and timing.
- Blade overlap and alignment.
- Safety in multi-machine environments.
- Practical exercise: tandem dozing of a stockpile.

Day 9: Dozer in Loading and Hauling Support

- Feeding material to loaders.
- Stockpile construction and management.
- Windrow dozing for road construction.
- Loading area preparation and maintenance.
- Spotting for trucks.
- Avoiding loader collisions.
- Practical exercise: support a loading cycle.

Day 10: Clearing and Grubbing Operations

- Clearing techniques: blade work for trees and brush.
- Grubbing: removing roots and stumps.
- Topsoil stripping and stockpiling.
- Debris management and burning regulations.
- Environmental protection: silt fences, erosion control.
- Safety around falling objects.
- Practical exercise: clear a designated area.

Day 11: Fine Grading and Finish Work

- Fine grading techniques: backblading, float pass.
- Laser grade control systems.

- Using string lines and grade stakes.
- Achieving drainage slopes.
- Smoothing and compacting final surface.
- Quality checks with level and straightedge.
- Practical exercise: fine grade a 10x10 m pad.

Day 12: Dozer on Soft Ground and Poor Conditions

- Soft ground challenges: sinkage, loss of traction.
- Use of timber mats and geotextiles.
- Operating techniques: low ground pressure.
- Track slip detection and correction.
- Self-recovery methods: winching, cribbing.
- Safety in boggy conditions.
- Practical exercise: traverse a soft area.

Day 13: Dozer in Demolition and Debris Handling

- Demolition techniques: pushing walls, breaking concrete.
- Debris sorting: metal, concrete, wood.
- Working with excavator and loader support.
- Dust control: water sprays, PPE.
- Hazard identification: rebar, unstable structures.
- Safety zones and exclusion areas.
- Practical exercise: demolish a low wall.

Day 14: Dozer in Pipeline and Trenching Operations

- Trench excavation for pipelines.
- Spoil placement: side casting, stockpiling.
- Backfilling and compaction.
- Trench safety: sloping, shoring, barricades.
- Working with pipelayers and compactors.
- Avoiding utility strikes.
- Practical exercise: excavate and backfill a trench.

Day 15: Dozer in Road Construction – Subgrade Preparation

- Subgrade preparation: cutting, filling, compaction.
- Achieving crossfall and camber.
- Using dozer for proof rolling.
- Moisture control and compaction testing.
- Working with graders for fine shaping.
- Quality control: levels, density tests.
- Practical exercise: prepare a 50 m road subgrade.

Day 16: Dozer in Quarry and Stockpile Management

- Stockpile building: cone, windrow, layered.
- Blending materials: dozing layers.
- Reclaiming material for crusher feed.
- Stockpile safety: ramps, edges.
- Working near crushers and conveyors.

- Dust and noise control.
- Practical exercise: build and reclaim a stockpile.

Day 17: Advanced Techniques – Slot Dozing and Side Cutting

- Slot dozing: creating and using slots.
- Side cutting: V-ditching, drainage channels.
- Production estimation: cycles per hour, volume.
- Factors affecting production: distance, material.
- Efficiency tips: blade load, gear selection.
- Practical exercise: slot doze a 100 m course.

Day 18: Troubleshooting and Minor Maintenance

- Daily maintenance: fluids, filters, tracks.
- Weekly maintenance: greasing, bolt checks.
- Common issues: overheating, loss of power.
- Hydraulic troubleshooting: leaks, slow response.
- Undercarriage wear and adjustment.
- Replacing blade cutting edges.
- Safety during maintenance.

Day 19: Site Safety, Risk Assessment and Environmental Compliance

- Risk assessment methodology (HIRA).
- Site-specific hazards: traffic, overhead lines, underground services.
- Environmental management: spill kits, dust suppression.
- Emergency procedures: fire, rollover, entrapment.
- Legal compliance: OHS Act, SANS codes.
- Documentation: permits, checklists.
- Practical exercise: complete a risk assessment.

Day 20: Integrated Practical Assessment and Course Review

- Integrated practical task: clear, grade, and stockpile.
- Assessment criteria: safety, accuracy, efficiency.
- Timed operation with quality checks.
- Oral questioning on theory and safety.
- Feedback session and improvement plan.
- Course review and certificate preparation.
- Final Q&A;

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **24 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 64,000.00	R 64,000.00
1	In-House	R 83,200.00	R 83,200.00
1	On-Campus (Pretoria)	R 96,000.00	R 96,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
04 Aug 2026	01 Sep 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	01 Sep 2026	On-Campus	Lagos, Nigeria
05 Aug 2026	02 Sep 2026	On-Campus	Johannesburg, South Africa
06 Aug 2026	03 Sep 2026	On-Campus	Mauritius
07 Aug 2026	04 Sep 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	07 Sep 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	08 Sep 2026	On-Campus	Abu Dhabi, UAE
12 Aug 2026	09 Sep 2026	On-Campus	Mauritius

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

- 1. Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 116058) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
- 2. Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
- 3. Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
- 4. Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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