



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

Hydraulic System Components for Agricultural Equipment

Agriculture and Nature Conservation / Secondary Agriculture

Unit Standard 246769 · NQF Level 2 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the skills to safely remove, dismantle, and install hydraulic system components on agricultural equipment. Participants will gain practical knowledge of hydraulic principles, component identification, and maintenance procedures to ensure optimal equipment performance and longevity.

Category	Agriculture and Nature Conservation
Subfield	Secondary Agriculture
Unit Standard	246769
Accreditation	SAQA Accredited · NQF Level 2 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and describe the function of major hydraulic system components on agricultural equipment.
- Apply safe procedures to remove and dismantle hydraulic components without causing damage or injury.
- Analyze component wear and diagnose common faults using appropriate tools and techniques.
- Install and reassemble hydraulic components according to manufacturer specifications.
- Test installed systems for leaks, pressure, and proper operation.
- Demonstrate compliance with relevant health and safety regulations during all tasks.

WHO SHOULD ATTEND

- This course is designed for agricultural technicians, mechanics, and equipment operators who are responsible for maintaining and repairing hydraulic systems on farm machinery.

COURSE OUTLINE

Day 1: Fundamentals of Hydraulic Systems

- Introduction to hydraulics: principles and applications in agriculture.\n• Hydraulic fluids: types, properties, and selection criteria.\n• Pumps: gear, vane, and piston types
- operation and characteristics.\n• Actuators: cylinders and motors
- types and applications.\n• Control valves: directional, pressure, and flow control.\n• Reservoirs, filters, and accumulators.\n• Hydraulic symbols and basic circuit diagrams.\n• Safety precautions when working with hydraulic systems.

Day 2: System Operation and Maintenance

- Hydraulic circuits: open-centre, closed-centre, and load-sensing systems.\n• Pressure and flow control in agricultural implements.\n• Routine maintenance: fluid sampling, filter changes, and seal inspection.\n• Common faults: leaks, cavitation, overheating, and contamination.\n• Diagnostic tools: pressure gauges, flow meters, and thermometers.\n• Safety procedures: pressure relief, lockout/tagout, and personal protective equipment.\n• Manufacturer specifications and service intervals.

Day 3: Advanced Troubleshooting and Practical Integration

- Systematic troubleshooting: symptom analysis, fault tree, and root cause.\n• Component testing: pump flow, cylinder drift, and valve response.\n• Replacement procedures for pumps, valves, cylinders, and seals.\n• Adjusting system pressure, flow, and relief settings.\n• Contamination control and oil analysis interpretation.\n• Performance optimisation: efficiency, heat management, and noise reduction.\n• Documentation and reporting of repairs and maintenance.\n• Integration of hydraulic systems with electronic controls (ISO Bus).

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 **6 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	12 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
11 Aug 2026	13 Aug 2026	On-Campus	Mauritius
12 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
12 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
17 Aug 2026	19 Aug 2026	On-Campus	Shenzhen, China
17 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa

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 246769) 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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