



MAINTENANCE MANAGEMENT TRAINING

Transmission, Driveline and Final Drive Maintenance

3 day course

Classroom, online or in-house

Course overview

Driveline components fail expensively and usually give warning first, through a noise, a temperature or a metal particle that somebody either investigated or drove past. This course teaches reading those warnings. Delegates work through power flow from engine to wheel and what each component does. Clutches are covered, including wear, adjustment and the driving practice that destroys them. Manual and automatic transmissions follow, with operating principles, oil specification and the temperature limits that govern life. Torque converters and powershift transmissions are addressed for heavy equipment. Propeller shafts, universal joints and balance are covered, including the vibration each fault produces. Differentials and final drives follow, with backlash, preload and the setting work a rebuild requires. Oil analysis and particle interpretation are addressed as the primary condition tool. Noise diagnosis is covered systematically, separating engine, transmission, driveline and wheel bearing noise. The course closes on removal, refitting and the alignment that protects a new component.

What you will learn

- Trace power flow and identify each driveline component's role
- Diagnose clutch wear and the practice that causes it
- Specify transmission oil and respect temperature limits
- Operate and maintain torque converter and powershift systems
- Diagnose universal joint and balance faults from vibration
- Set differential backlash and preload on rebuild
- Interpret oil particles and diagnose driveline noise by source

Who should attend

- Heavy vehicle and plant mechanics
- Transmission specialists and rebuilders
- Fleet maintenance supervisors
- Mining equipment maintainers
- Workshop technicians in transport operations

Course outline

- 01 Warnings somebody drove past
- 02 Power flow from engine to wheel
- 03 Clutch wear and driving practice
- 04 Manual and automatic transmissions
- 05 Torque converters and powershift systems
- 06 Propeller shafts, joints and balance
- 07 Differentials, backlash and preload
- 08 Oil particle interpretation, noise diagnosis and refitting

Upcoming dates



Dates	Venue	Format	Fee per delegate
12 to 14 October 2026	Harare, Zimbabwe	Classroom	USD 995
18 to 20 November 2026	Lusaka, Zambia	Classroom	USD 995
16 to 18 December 2026	Johannesburg, South Africa	Classroom	R14,950
8 to 10 February 2027	Lagos, Nigeria	Classroom	USD 995

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afiscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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