Hawa redefines the face of welding

Steel, sparks and sisterhood. From rural Nakaseke to the Eacop project, Hawa Kudala's rise from informal workshops to high-tech pipeline welding signals a new chapter for women in Uganda's industrial space.

BY PROMISE TWINAMUKYE

AT A GLANCE

Know that...

Currently CPP is constructing the East African Crude Oil Pipeline (EACOP) which is a 1,443 km pipeline that will transport Uganda's crude oil from Kabaale, Hoima to the port of Tanga in Tanzania. The pipeline passes through 10 districts in Uganda. This project is implemented by EACOP Ltd, formed by shareholder TotalEnergies, CNOOC, Uganda National Oil Company (UNOC) (on behalf of the government of Uganda), and Tanzania Petroleum Development Corporation (TPDC) Tanzania government.

When the sparks fly along the East African Crude Oil Pipeline(EACOP), few would expect a young woman from rural Nakaseke to be behind the welding torch. Yet there she stands steady, focused, and unflinching, Hawa Kudala, quietly making history in one of Uganda's most male-dominated professions.

From Kalagala Village in Nakaseke District, Kudala is one of only two female welders working with China Petroleum Pipeline Engineering Co. Ltd (CPP Uganda) on the EACOP project. More remarkably, she is currently the only woman training in automatic welding on the Tilenga Feeder-line Pipeline—a highly specialised, technology-driven skillset that places her among a rare cadre of welders in the country.

Her journey to this moment has been anything but smooth.

For two years, Kudala laboured in small metal workshops across Luwero District, fabricating doors, windows and basic household structures. The work was punishing on the body, unreliable in pay and offered little room for growth. Still, she showed up every day, driven by a deep love for welding, a trade she discovered during her training at Nakaseke Technical Institute and later refined at the Uganda Petroleum Institute Kigumba (UPIK), where she earned her National Certificate in 6G coded welding.

"Many people told me that welding is a niche for men," Kudala recalls. "Even some clients were surprised to see a woman holding a welding machine. But I never doubted myself. I knew I had the skills and the passion."

Like many young artisans, her ambitions were shaped and constrained by access. She had the basics, the discipline, the hunger to learn. What she lacked was opportunity. Working on a major industrial project, let alone an international oil pipeline stretching across borders, felt impossibly distant.

Then, came the call that changed everything.

Selected to join CPP Uganda, Kudala stepped into a world few local welders ever access. Today, she is training on advanced CPP G 1990 series automatic welding machines, high-precision equipment that demands technical mastery, sharp judgement and unwavering attention to detail. For women in the trade, such exposure is almost unheard of.

The training is rigorous and unforgiving. It blends classroom theory with intense hands-on practice, pushing trainees to master every aspect of automatic welding. Kudala is learning to start up and debug complex welding machines, identify and assemble components, centre and adjust welding torches with millimetre accuracy, and execute both single-pass and multi-pass welds in the demanding 5G position used in pipeline construction.

Beyond the mechanics, she is being trained in weld pool observation and control, fine-tuning welding parameters, understanding droplet transfer, and applying strict quality control measures including weld cleaning, interlayer inspection and basic non-destructive testing. These are skills aligned with international pipeline standards, where safety is non-negotiable and failure is not an option.

The leap from informal workshop welding to automatic pipeline welding has been transformative.

"In the workshops, we mostly used manual welding and simple machines," Kudala explains. "Here, everything is precise. You must understand the machine, the parameters and the inspection. It has changed how I see welding not just as a job, but as a profession."

But technical growth has not come without emotional cost.

Being the only woman in the automatic welding cohort meant carrying the weight of expectation and scrutiny. Surrounded by men with years of field experience, Kudala admits she initially struggled with self-doubt.

"At first, I was nervous," she s[illegible] I kept asking myself if I was good enough. But now I know I belong here."

That confidence shows in the way she speaks about her work—and in the quiet pride she takes in donning her personal protective equipment and operating machines many never imagined a woman would touch.

"When I wear my personal protective equipment and operate the machine, I feel proud," she says. "Not just for myself, but for other girls who want to join technical fields."





Hawa Kudala is currently the only woman training in automatic welding on the Tilenga Feeder-line Pipeline. PHOTOS/ PROMISE TWINAMUKYE

02 YEARS IN INFORMAL JOBS

Inclusion agenda

For CPP Uganda, Kudala's journey is a reflection of its national content and inclusion agenda. According to Haitao Zhang, the company national content manager, her progress speaks volumes.

"Seeing women such as Kudala excel in highly technical roles is very encouraging," Zhang says. "Our goal is to provide equal opportunity for local talent, regardless of gender. When women access advanced skills such as automatic welding, they become role models and change perceptions in their communities."

Once Kudala completes her training and successfully passes radiographic inspection, a stringent test that examines weld integrity, she will receive a recognised qualification certificate. This will place her among a small, elite group of certified automatic welders in Uganda, giving her a significant edge in securing long-term employment in oil, gas and major infrastructure projects.

For Kudala, the opportunity is about far more than personal advancement. It represents economic independence, dignity and the power to inspire change.

"With these skills, I can earn [illegible]

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