New tax regime continue to dent mining sector
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ADVERTISING INDEX

BKT   IFC  1
CONDRA CRANE & HOIST  3
CTrack   5
CML   6
HIRSCHMANN   9
DEmag   10
ZAMSHU   13
LUFwANYA   14
HILL & DELAMAIN  20
SEBA FOODS  23
SESS   25
TULELA ZAMBIA LTD  26
TOYOTA ZAMBIA  27
MACAFERRI  28
EML   29
DALBE HOLDINGS  30
CUMMINS   31
HITACHI   32
SAI DEEPA   33
WEAR-CHECK   34
NAMPORT   35
SHAMBA LODGE   36
CAMINEX   37
CP ENGINEERING   38
GROUP R   IBC  1
KARCHER   BC

Contents

EDITORIAL COMMENT

 Authorities should give mining sector an ear ............................................................... 6

NEWS BRIEFS

 Black Mountains to empower youths ................................................................. 7
CAMINEX returns to Kitwe Showground ................................................................. 7
CEC looks into the future .................................................................................. 7
Kalabla demonstration plant commissioned ......................................................... 7
Lesotho discover 72 carat yellow diamond ............................................................... 7
Lungu implores economic players to eye Angola .................................................... 7

COVER STORY

New tax regime continue to dent mining sector ....................................................... 8

LOCAL NEWS

Avoid contracting new non-concessional debt - IMF ........................................... 9
Bulemu solar projects kicks off ........................................................................ 10
CEC, ABB present digital substation to UNZA ..................................................... 11
Mining expansionary projects to push power demands ........................................ 12
Gold mining reduces infant mortality rates ......................................................... 13
Villagers cleared to sue copper mine in London .................................................. 14

REGIONAL NEWS

Africa’s first gold trading platform launched ....................................................... 15
Ctrack specialises in the research, design, development, manufacture, sales and support of technologically advanced GPS/GSM fleet management and vehicle tracking solutions. Ctrack Intelligent solutions strives to create a safer Zambia for all by providing holistic tracking solutions.
As the stalemate between government and the mining industry over taxes continue, the question is who is benefitting from this impasse.

In our first edition of the year, we called for government and the mining sector to amicably solve the issue, for the simple reason of various stakeholders being directly or indirectly affected.

Five months down the line we still hear that the new tax regime continue to dent the mining sector, surely this red tape will leave us with more regrets.

We say red tap because we believe someone is delaying the discourse to solve this issue.

Recent reports from Zambia Chamber of Mines indicate that the newly implemented tax regime is igniting production challenges for several mining companies.

The mining body's President has appealed to government to relax the tax policies, least some mining companies will not operate beyond this year.

What more do authorities need to hear before action is taken, at this moment a Presidential directive is needed, it can be the only solution.

Our advice in January, as Zambian Mining was: 'When two elephants fights, the grass suffers', we still stand on that opinion and call for Government and Miners to reach a consensus.

Now the most threatened is employees, lest we forget that government is already reeling under pressure to create employment, threats by miners to trim workforce in a bid to meet tax demands, is a sad development.

Our authorities should also remember investors are also sought after by our neighbours, we cannot allow such a situation. Resolving the issues on taxes will prop up the economy and close the public debt gap.

Government should heed the call by the Chamber of Mines to relax tax policies to include removal of the import duty on copper concentrates so that mining companies relying on imported concentrates can continue to import and sustain their production.

Meanwhile it is sad to hear that mining companies that rely on imported copper concentrates were now failing to produce as importing concentrates has become unattainable.

Remember to share with us your comments, opinions and letters on drewmara@gmail.com

Enjoy the read!
Black Mountains to empower youths

Government has announced plans to identify more slug dump sites (Black Mountains).

Richard Musukwa, Mines Minister said the Black Mountains will be used to empower youths, to generate income.

Musukwa said modalities are being worked on to ensure youths access all the slug dump sites in the country. And the ministry is currently in discussion with various mining companies.

Musukwa implored on youths to exercise patience, as government negotiates for them to occupy some slug dump sites.

The Small-Scale Miners Association of Zambia has applauded government desire to empower young people.

Samson Mpembwe, Association Spokesperson appealed to authorities to speed up the process of giving Luanshya youths the slug dump in their town.

CAMINEX returns to Kitwe Showground

Annually Copperbelt Mining, Agricultural & Industrial Trade Expo (CAMINEX) returns to Kitwe Showground on the 4th to 6th June to deliver innovation and opportunities.

CAMINEX is a trade platform for the Copperbelt region that offers an opportunity to generate sales, gain valuable sales leads, and develop business connections.

The trade jamboree gives companies a face-to-face platform with customers and fast-track business growth on the Copperbelt.

Organiser of CAMINEX, Specialised Exhibitions Montgomery believes exhibiting is the most cost-effective way of reaching the greatest number of decision-makers in a specific target market in the shortest space of time.

The show enjoys unequivocal local support as it is hosted in conjunction with a local partner and is attended and endorsed by local government.

This support influences increased attendance from the mines and creates valuable local media exposure. CAMINEX is also supported by the DTI South Africa and the South African Capital Equipment Export Council (SACEEC), Leatitia van Straten, Marketing Director at Specialised Exhibitions Montgomery.

Over the years CAMINEX has grown into a unique brand with so much to offer and a regular on the Copperbelt calendar.

CEC looks into the future

CEC has announced intentions to remain committed to creating sustained value for all stakeholders through successful execution of its strategy to provide long-term sustainable value.

The announcement was made on the company’s annual report for the year ended 31 December 2018.

London Mwafulilwa, CEC Chairman said the company is continuing to pursue opportunities in its key markets of Zambia and the DRC where balancing the need for short term profitability and long-term value creation will remain important.

The launching into commercial operation, in 2019, of our DRC office should lend support to deepening our service offering in that market and opening up further opportunities for growth.

On the home front, we will continue to pursue opportunities in generation and transmission that align with our core business, including participating in Government driven programmes such as GET FiT Zambia and Scaling Solar,” said Mwafulilwa.

In addition, the company is keeping its sight on ensuring that commercial contracts stay relevant and continue to support business sustainability for all players in the sector.

Kalaba demonstration plant commissioned

Arc Minerals’ Kalaba demonstration pilot plant has been commissioned with initial production of copper or cobalt sulphide concentrate.

The junior explorer is finalising detailed oxide resource tonnages, grades and mining plans in line with the completion of the block modelling of the overall oxide resource.

According to Arc, the block model assessment of the orebody will provide the basis for a review of operational and mining strategy, including the cost benefit potential of upgrading the oxide ore feed into the plant aimed at materially reducing consumption of acid and related input costs.

Initial production will incur no mining cost as the plant feed will be drawn down from the existing stockpile of 10,000 t at two percent copper.

The potential to enhance revenue streams through the production of separate copper and cobalt sulphide precipitates is also being investigated.

Nick von Schirnding, Arc Minerals executive chairperson said the company has completed the plant under budget, for less than $500 000.

He highlighted it as an ‘important step regarding Zamsort’s previous commitments in terms of its exploration licences’. The chairperson added that the company has made progress with the next phase of exploration at newly identified targets.

Lesotho discover 72 carat yellow diamond

Firestone Diamonds recently recovered a 72 carat yellow, makeable diamond from its Liqhobong Mine in Lesotho.

The 72 carat diamond was recovered together with a 22 carat makeable white stone, followed by an 11 carat fancy light-pink stone. These diamonds will go on sale at the next tender which is scheduled to take place during May 2019.

“It was a good weekend for us, recovering the 72 carat diamond as well as the two smaller, high quality stones from within the northern, lower grade part of the pit. These recoveries will certainly assist in supporting the average value of the next sale in May,” Paul Bosma, Firestone Diamonds Chief Executive Officer.

According to the company, the find is the second 70 carat stone recovered from the operation this year, following the 70 carat white, makeable which was sold in the March auction at a record overall price for a Liqhobong diamond.

Meanwhile Gem Diamonds also recently announced a 13.33 carat pink diamond recovered at its Letšeng mine sold on tender in Antwerp for US$ 8,750,360.

The sale represents a record dollar per carat price of US$ 656,933 for a Letšeng diamond.

Lungu implores economic players to eye Angola

President Edgar Lungu has called for meaningful bilateral relations with Angola, encouraging local players in the economy to source for more developmental links with seventh-largest country in Africa.

He said the two countries have not sufficiently integrated economically hence the need for avenues that will enhance trade.

President Lungu has emphasized the need to implement the construction of a pipeline, roads and railways systems between the two countries, adding that a pipeline connecting the two countries will help relieve the burden of importing fuel.

He further advised on the need to engage the private sector from both countries for goal attainment purposes.

www.miningnewszambia.com
New tax regime continue to dent mining sector

Newly implemented tax regime is igniting production challenges for several mining companies, the country’s mining apex body has announced.

Goodwell Mateyo, the Zambia Chamber of Mines President has appealed to government to relax the tax policies, least some mining companies will not operate beyond this year.

He cited that taxes such as the tax on importation of copper concentrates and the export duty had paralyzed operations of mines such as Konkola Copper mines, Chambeshi Metals and Mopani Copper Mines among others.

Mateyo said mining companies that rely on imported copper concentrates were now failing to produce as importing concentrates has become unattainable.

Chambeshi Metals has completely halted operations due to failure to import copper concentrates from the Democratic Republic of Congo.

Mateyo further said introduction of sales tax which was non-refundable was also retrogressive to the mining companies. He urged government to relax some tax policies to ensure the survival of the mining sector.

The Chamber of Mines wants the relaxation of tax policies to include removal of the import duty on copper concentrates so that mining companies relying on imported concentrates can continue to import and sustain their production.

Mateyo further urged government to rescind its policy on replacing value added tax by sales tax which is non-refundable among other measures.

Most copper mines on the Copperbelt are struggling with production and have resorted to implementing hush austerity measures which are detrimental to workers.

For example, Konkola Copper Mine which has frozen all promotions, payment of overtime and weekend allowances among other incentives.

However, Richard Musukwa Mines Minister said government will not accept such austerity measures by KCM which deprive workers of their rightful employment privileges.

Musukwa said the austerity measures implemented by KCM do not promote production as required in mining because such allowances were the ones that motivate workers to increase production.

However, KCM heavily relies on imported Copper concentrates for its production.
International Monetary Fund (IMF) has projected the country’s growth to slow down from 3.7 percent recorded last year to 2.3 percent in 2019, lower than earlier envisages due to the impact of the drought on agricultural production.

The Fund called for a large up-front and sustained fiscal effort, including: avoiding contracting any new non-concessional debt, steps to raise revenues, halting the build-up of new arrears, and aligning the pace of spending on well-targeted public investment projects with Zambia’s available fiscal space, to reduce risks.

The frank and collaborative suggestion was made after IMF staff and government authorities took stock of the current situation and outlook for the economy, to gain a shared appreciation of current challenges and policy options going forward.

The Fund said the inflation currently close to the central bank’s upper band is projected to rise over the course of 2019.

“What with a diminished impact of the drought over time, and progress in addressing arrears, there is potential for growth to accelerate over the medium term,” said Mary Goodman, IMF staff team leader.

The Fund warned that the country’s development strategy targeting a rapid scaling up in infrastructure spending has resulted in large fiscal deficits, financed by nonconcessional debt.

“The 2018 budget deficit (commitment basis) reached 10 percent of GDP (7.5 percent on a cash basis), and total public and publicly-guaranteed debt including domestic arrears at end-2018 was 73.1 percent of GDP.”

IMF further said the recent increase in yields on government paper and higher interest costs on foreign debt due to the depreciation of the kwacha, government spending in other areas is being squeezed, including on social programs and transfers to local governments.

“The significant buildup in domestic expenditure arrears is weighing on households and businesses and presents a risk for the financial sector.”

However, the mission welcomed the enactment of the Public Finance Management Act in 2018, which should strengthen management of public resources once the accompanying legislation has been enacted.

Specifically, the passage of the Planning and Budgeting Bill will be important to enhance the project selection/appraisal process while the revised Loans and Guarantees Act would provide the necessary framework for medium-term debt management.
Multinational Italian company operating as a global integrated independent power producer in the renewable energy sector has been appointed preferred bidder in the GET FiT tender.

Government recently made an expression of interest to facilitate private sector investment in the country, for two solar projects.

Italian Group, Building Energy will develop the two-20MWac solar projects in Bulemu. And once completed will generate 50GWh each per year.

GET FiT programme is a partnership between government and German Development Bank, KfW, implemented by the GET FiT Secretariat in order to develop small and medium-scale renewable energy independent power projects (IPPs).

So far, this is the largest single Solar PV tender implemented in Sub-Saharan Africa to date outside of South Africa, and represents the first phase of implementing the country’s REFiT strategy, launched in 2017.

With an average annual growth in electricity consumption of around three percent, authorities have set the goal for a universal access to reliable and affordable energy at the lowest total economic, financial, social and environmental cost by 2030.

Meanwhile increasing access to electricity and encouraging the electrification of rural areas is critical for government to foster strong and sustainable economic growth.

Though renewable energy sources are abundant in the country and hydropower is the major contributor to the country’s electricity supply with 2,380 MW.

Indications are that government has a significant need to diversify its energy generation mix in order to reduce its dependence on hydroelectricity, which has experienced major issues due to the draught.

The awarded tariff of 3.99 USc/Kwh, proposed by Building Energy, is the lowest achieved through a public tender in Sub-Sahara Africa for a solar project.

“We are excited about the news of being awarded the Bulemu projects.” – said Matteo Brambilla, MD Africa and Middle East of Building Energy.

“Winning this bid is particularly important to Building Energy because it strengthens our presence in the African continent and witnesses that our business model and strategy are effective in the continent.

“We are also very proud to make our contribution in helping the Republic of Zambia to meet its national electrification goals expanding access to affordable, reliable and clean power, while also diversifying the generation mix”.

Building Energy operates globally but has a particularly strong presence in Africa across solar, wind and hydro projects.
Copperbelt Energy Corporation (CEC) and pioneering technology leader ABB recently handed over a retrofitted and digitised substation to the University of Zambia’s School of Engineering.

The substation, which forms part of a mini power system comprising two substations, switchgear room, transmission line, battery and control rooms, has been equipped with modern protection equipment and a digital bay, the first in Africa.

Designed to provide practical learning in electrical engineering and power system management, the infrastructure was developed and commissioned by CEC in 2016 at a cost of USD2,560,000.

CEC has spent another K118,000 on the upgrade and other infrastructural rehabilitation works.

The two companies collaborated to deliver the project under the auspices of the Education Partnerships in Africa, an initiative crafted to facilitate the provision of institutional support to the University of Zambia and Copperbelt University in the areas of staff training, provision of training aids and infrastructural rehabilitation primarily through industry and academia linkages.

Owen Silawwe, CEC Managing Director said his company’s involvement and contribution to the technology upgrade and facility rehabilitation reaffirmed the power utility’s belief that close and sustained collaboration between the business sector and academia as espoused in the objectives of EPA could progressively improve the delivery of training and education at African institutions of higher learning and the attained qualifications.

“By creating these state-of-the-art training facilities for engineering students, CEC aims to create a strong partnership with the Government, the University and the nation in developing a pool of fully capacitated human capital ready to meet the needs of the changing landscape in the power sector in Zambia by helping reduce the skills gap in engineering students through exposure to the real-life electrical equipment used in industry,” said Silawwe.

Tobias Becker, ABB Senior Vice President, Global Head of Government Relations said the pace at which technology evolved required to be matched with the creation of learning opportunities that were in tandem with the needs of industry.

“ABB is a strong believer in the power of engineering to promote human development. We are proud to be able to support Zambia’s largest university to modernize their offering and ensure their graduates help the economic growth of the country and support the access to energy.

“This substation will help Zambia to accelerate skills development as we look towards the future of energy,” said Becker.

Mathews Nkhuwa, Energy Minister hailed CEC and its partners for their continued support to the Government noting that the infrastructure provided would significantly contribute to the training of engineers who would be well equipped to meet the challenges and opportunities in the energy sector in order to transform the country’s economy.

CEC, ABB present digital substation to UNZA

“This substation will help Zambia to accelerate skills development as we look towards the future of energy,”

May - June 2019

LOCAL NEWS

www.miningnewszambia.com
Copperbelt Energy Corporation (CEC) posted positive results for its audited results for the year ended 31 December 2018. The results indicate that revenue increased by 19 percent from ZMW3,697 million in 2017 to ZMW4,405 million mainly on account of increased energy consumption, consistent power supply to the DRC market and depreciation of Kwacha against the US dollar.

The company also recorded a profit after tax of ZMW584 million compared to ZMW459 million in 2017, represented an increase of 27.2 percent.

According to the company the positive results come at the backdrop of a satisfactory power supply network throughout the year.

“The good rainfall during the 2017/18 season resulted in sufficient energy in the country’s main dams at Kariba and Itezhi Tezhi to sustain the country’s requirements for most of 2018 without import support.

“This was complemented by other smaller hydro power plants and independent power producers, including Maamba Collieries Limited and Ndola Energy Company Limited,” said the company.

The report highlights that most of the energy for local mining customers was sourced from ZESCO as contractually required under the Bulk Supply Agreement.

“CEC only imported energy from the Southern African Power Pool (SAPP) in the first quarter of the year.

“Based on supplemental power agreements, imported power was supplied as replacement power to address the 30 percent energy deficit resulting from the partial drought of 2014”

However, with the country gaining enough water in its dams by April 2018, ZESCO lifted the partial force majeure earlier declared in 2015, signalling that local sources were able to fully meet national demand. We, therefore, discontinued power imports from the SAPP in April 2018.

Julia Chaila, CEC Company Secretary said the total energy handled by the company network in 2018 was 5,220.717GWh, out of which 3,761.343GWh constituted consumption by the mines while 1,459.374GWh was wheeled for ZESCO.

“Sales to mine customers totaled 3,676.003GWh compared to 3,512.529GWh the previous year. The Company carries out wheeling, which is the transportation of power on behalf of other entities, within the country and the SAPP,” said Chaila.

Chaila said the largest portion of this business segment is on behalf of ZESCO in relation to power supplied to all other customer categories other than the mines on the Copperbelt Province.

“We also wheel power for Frontier Mine, located in the DRC. A total of 1,476.161GWh and 271.583GWh was wheeled for ZESCO and frontier mine respectively.”

Chaila further said mine demand while recovering is still below the levels seen early in 2015 before the commodity crunch, highlighting good prospects for further demand growth for this customer segment in 2019.

“Growth in this area will mostly be driven by mining expansionary projects by our customers, which are beginning to reach commercial operation,” said Chaila.

She said the domestic wheeling business segment which has shown steady moderate growth over the last three years is also expected to continue on this trajectory in the coming year as electrification efforts are ramped up and new commercial and industrial customers are connected to the grid.

“Downside risks to the projected mine demand include potential continuing trade tensions between the USA and China and possible negative impact of the changes to the local fiscal regime.”

Meanwhile Chaila said in the coming year, the company’s energies will be expended on key strategic focus areas of the business that will drive our performance in enhancing sustainable value.

“Our commitment to participate in the development of renewable generation projects, such as hydro and solar, aligned with our core business, is well reflected in our strategy”
Large scale gold mining in sub-Saharan Africa has reduced infant mortality in nearby communities, with rates falling by 50 percent among those born within 10 km of a gold mine.

This is the conclusion of new research by Anja Benshaul-Tolonen published in the May 2019 issue of *The Economic Journal*, who finds that local industrial development may be an effective way to reduce infant mortality in developing countries with high mortality rates from poverty.

Drawing on data on women’s fertility records from demographic and health survey and large-scale gold mining data from eight countries over 30 years, the study shows that the average mortality rate in the communities before the mines open is 151 deaths per 1000 births.

This rate drops during the investment of large-scale gold mining and continues to fall following the mine opening. The author finds that the rate drops by around 79 deaths per 1000 births. This is the equivalent of the total gains in infant survival achieved in Sub-Saharan Africa since the 1970s to today.

Many children die of poverty and its consequences with malnutrition and lack of basic health care among the main culprits.

According to the author, the significant fall in infant mortality found in this study may come from increases in economic growth and that women living close to mines are 27 percent more likely to work in the service sector. Similarly, there are other possible explanations including increased health knowledge and access to remedies.

While child mortality rates are still high in Sub-Saharan Africa, with 1 out of 9 children dying before their fifth birthday, this fall in mortality is comparable to historic reductions.

For example, in China mortality fell by 58 deaths per 1000 births between 1960-70, or 79 deaths between 1960-1980, from an average of 121 deaths per 1000 in 1960.

The author argues that industries can increase local income levels, and thus reduce poverty levels. But if these industries are polluting, they can negatively affect health in the population.

The study does not analyse adult health, so future studies should explore lifetime health of the population. And, the author suggests, as mortality levels become lower and the populations richer, industrial development may have very little, or even negative, effects on infant mortality rates as seen in developed countries.
Two thousand villagers who say their lives have been ruined by toxic runoff from the world's second-largest opencast - Konkola Copper Mine have won the right to pursue a claim through the English courts.

In a landmark judgment, the Supreme Court ruled that the mining conglomerate Vedanta Resources, which is based in London, and its Zambian subsidiary Konkola Copper Mines (KCM) can be held to account by English judges, despite the companies' arguments that they should defend themselves in Zambia.

The decision opens the doors to a range of other cases to be brought against parent companies based in the UK for the actions of their subsidiaries overseas.

Oliver Holland, associate solicitor at Leigh Day, who represented the Zambians, said: "I can see companies around London looking at their policies and thinking: what's going to happen now?"

The case was brought by 1,826 residents of the Chingola region, in Zambia's Copperbelt province, who say that effluent from the Nchanga opencast mine has polluted their water supplies.

A vast operation covering nearly 30 sq km, the copper mine and its processing plant lie close to the Kafue River and its tributaries. Local farmers and fisherman claim to have suffered continual pollution since Vedanta bought KCM in 2004, including an incident in 2006 which they say turned the Kafue bright blue with copper sulphate and acid, and poisoned water sources for 40,000 people.

Chemicals believed to be draining into the local water supply include heavy metals such as lead and cadmium, which the claimants say have led to them suffering chronic illnesses and deaths.

"The villagers live close to the river, which we say that the effluent goes into, so it's polluting their water sources and farmland," Holland said. "They are saying they have to drink polluted water because there is no other water source."

James Nyasulu from Chingola, a long term campaigner in the case, said the decision will finally enable thousands of victims of pollution to seek justice. "Their livelihoods, land and health have been irreparably damaged by pollution which has rendered the River Kafue completely polluted and unable to support aquatic life."

The claimants first issued their case in the high court in London in 2015, claiming negligence and breach of statutory duty over the release of effluent, but before it could proceed Vedanta challenged the jurisdiction of the English courts.

The Supreme Court's decision on Wednesday confirmed rulings in both the high court and the court of appeal.

A key point in the case were claims in company literature published by Vedanta – a £10bn company – that it took responsibility for environmental and sustainability standards across the group.

It had agreed to submit to action in the Zambian courts alongside KCM, but the Supreme Court justices agreed with the claimants' argument that there was a risk they may not have access to justice in Zambia, and so allowed the case against both companies to be heard in England.

"Had it not been for the access to justice problem, this court would therefore have refused the claimants permission to serve these English proceedings out of the jurisdiction upon KCM in Zambia," Lord Briggs told the court.

"As it is, however, the non-availability of access to justice in Zambia means that the proceedings against both defendants must continue in England."

A spokesperson for Vedanta and KCM said the judgment was a procedural one relating to the jurisdiction of the case.

"It is not a judgment on the merits of the claims," the spokesperson said. "Vedanta and KCM will defend themselves against any such claims at the appropriate time."

The claim against Vedanta and KCM can now proceed in the high court.
Africa’s first gold trading platform launched

Sawa Minerals, a tech-driven company has created and launched a platform that will transform how gold is mined and sourced across Africa and the developing world.

The platform has been designed in such a way that it is easy to buy ethically mined gold from artisans and small scale miners (ASM) across Africa and the developing world.

One of the co-founders Kali Angwa said they settled on the name Sawa because it captures the purpose of the platform.

The name ‘Sawa’ is Swahili for fine, all good or no worries.

Sawa Minerals is a platform where stakeholders in the gold mining industry are not worried about fraud, gold buyers are assured of ethically mined gold while miners are assured of decent pay.

The platform will be guided by the principles of fair treatment of the planet, sustainability, conflict-free gold mining, fair pay, and protection of human life.

The ultimate goal of Sawa Minerals is to bring transparency, and ensure that artisans and small-scale gold miners are part of an inclusive value chain that will transform their livelihoods.

"It is a sad reality that small-scale miners in Africa and the rest of the developing world make a huge contribution to the global gold trade yet they remain poor, exposed to hazards and the constant threat of conflicts. Sawa Minerals challenges this status quo," said Angwa.

Angwa, said artisanal and small-scale gold miners in developing countries will now have the opportunity to be part of an inclusive platform that respects and puts their needs first.

He said Sawa Minerals is committed to inspiring an ecosystem that will shape the future of ethical mining of gold, one that is free of child labour, where the miners community will work in safe conditions and earn life-sustaining income.

‘Artisanal and small-scale mining is an important supplier to key sectors of the global economy including construction, jewelry, and electronics. For example, if all of the world’s ASM community stopped working today, the world would suffer a shortage of 20 percent gold, 20 percent diamond and 80 percent of global sapphire’, said Angwa.

Pathways to meet power demand with renewable energy exist

As the urgency to take bold climate action grows, new analysis by the International Renewable Energy Agency (IRENA) finds that scaling-up renewable energy combined with electrification could deliver more than three quarters of the energy-related emission reductions needed to meet global climate goals.

According to the latest edition of IRENA’s Global Energy Transformation: A Roadmap to 2050, launched at the Berlin Energy Transition Dialogue recently, pathways to meet 86 per cent of global power demand with renewable energy exist.

Electricity would cover half of the global final energy mix. Global power supply would more than double over this period, with the bulk of it generated from renewable energy, mostly solar PV and wind.

"The race to secure a climate safe future has entered a decisive phase," said IRENA Director-General Francesco La Camera.

"Renewable energy is the most effective and readily-available solution for reversing the trend of rising CO2 emissions. A combination of renewable energy with a deeper electrification can achieve 75 per cent of the energy-related emission reduction needed.*

An accelerated energy transition in line with the Roadmap 2050 would also save the global economy up to USD 160 trillion cumulatively over the next 30 years in avoided health costs, energy subsidies and climate damages.

Every dollar spent on energy transition would pay off up to seven times. The global economy would grow by 2.5 per cent in 2050. However, climate damages can lead to significant socioeconomic losses.

"The shift towards renewables makes economic sense," added La Camera.

"By mid-century, the global economy would be larger, and jobs created in the energy sector would boost global employment by 0.2 per cent. Policies to promote a just, fair and inclusive transition could maximise the benefits for different countries, regions and communities."

This would also accelerate the achievement of affordable and universal energy access. The global energy transformation goes beyond a transformation of the energy sector. It is a transformation of our economies and societies.*

But action is lagging, the report warns. While energy-related CO2 emissions continued to grow by over 1 per cent annually on average in the last five years, emissions would need to decline by 70 per cent below their current level by 2050 to meet global climate goals.

This calls for a significant increase in national ambition and more aggressive renewable energy and climate targets.

IRENA’s roadmap recommends that national policy should focus on zero-carbon long-term strategies. It also highlights the need to boost and harness systemic innovation.

This includes fostering smarter energy systems through digitalisation as well as the coupling of end-use sectors, particularly heating and cooling and transport, via greater electrification, promoting decentralisation and designing flexible power grids.

"The energy transformation is gaining momentum, but it must accelerate even faster," said La Camera.

"The UN’s 2030 Sustainable Development Agenda and the review of national climate pledges under the Paris Agreement are milestones for raising the level of ambition. Urgent action on the ground at all levels is vital, in particular unlocking the investments needed to further strengthen the momentum of this energy transformation. Speed and forward-looking leadership will be critical – the world in 2050 depends on the energy decisions we take today."

www.miningnewszambia.com
Gold worth billions smuggled out of Africa

By DAVID LEWIS, RYAN McNEILL and ZANDI SHABALALA

Billions of dollars’ worth of gold is being smuggled out of Africa every year through the United Arab Emirates in the Middle East – a gateway to markets in Europe, the United States and beyond – a Reuters analysis has found.

Customs data shows that the UAE imported $15.1 billion worth of gold from Africa in 2016, more than any other country and up from $1.3 billion in 2006. The total weight was 446 tonnes, in varying degrees of purity – up from 67 tonnes in 2006.

Much of the gold was not recorded in the exports of African states. Five trade economists interviewed by Reuters said this indicates large amounts of gold are leaving Africa with no taxes being paid to the states that produce them.

Previous reports and studies have highlighted the black-market trade in gold mined by people, including children, who have no ties to big business, and dig or pan for it with little official oversight. No-one can put an exact figure on the total value that is leaving Africa. But the Reuters analysis gives an estimate of the scale.

Reuters assessed the volume of the illicit trade by comparing total imports into the UAE with the exports declared by African states. Industrial mining firms in Africa told Reuters they did not send their gold to the UAE – indicating that its gold imports from Africa come from other, informal sources.

Informal methods of gold production, known in the industry as “artisanal” or small-scale mining, are growing globally. They have provided a livelihood to millions of Africans and help some make more money than they could dream of from traditional trades. But the methods leak chemicals into rocks, soil and rivers.

And African governments such as Ghana, Tanzania and Zambia complain that gold is now being illegally produced and smuggled out of their countries on a vast scale, sometimes by criminal operations, and often at a high human and environmental cost.

Artisanal mining began as small-time ventures. But the “romantic” era of individual mining has given way to “large-scale and dangerous” operations run by foreign-controlled criminal syndicates, Ghana’s President Nana Akufo-Addo told a mining conference in February. Ghana is Africa’s second-largest gold producer.

Not everyone in the chain is breaking the law. Miners, some of them working legally, typically sell the gold to middlemen.

The middlemen either fly the gold out directly or trade it across Africa’s porous borders, obscuring its origins before couriers carry it out of the continent, often in hand luggage.

For example, Democratic Republic of Congo (DRC) is a major gold producer but one whose official exports amount to a fraction of its estimated production. Most is smuggled into neighbouring Uganda and Rwanda.

“It is of course worrisome for us but we have very little leverage to stop it,” said Thierry Boliki, director of the CEEC, the Congolese government body that is meant to register, value and tax high-value minerals like gold.

The customs data provided by governments to Comtrade, a United Nations database, shows the UAE has been a prime destination for gold from many African states for some years. In 2015, China – the world’s biggest gold consumer – imported more gold from Africa than the UAE. But during 2016, the latest year for which data is available, the UAE imported almost double the value taken by China.

With African gold imports worth $8.5 billion that year, China came a distant second. Switzerland, the world’s gold refining hub, came third with $7.5 billion worth.

The UAE reported gold imports from 46 African countries for 2016. Of those countries, 25 did not provide Comtrade with data on their gold exports to the UAE. But the UAE said it had imported a total of $7.4 billion worth of gold from them.

In addition, the UAE imported much more gold from most of the other 21 countries than those countries said they had exported. In all, it said it imported gold worth $3.9 billion – about 67 tonnes – more than those countries said they sent out.

“There is a lot of gold leaving Africa without being captured in our records,” said Frank Mugyenyi, a senior adviser on industrial development at the African Union who set up the organisation’s minerals unit. “UAE is cashing in on the unregulated environment in Africa.”

The Dubai Customs Authority referred Reuters’ queries to the UAE foreign ministry, which did not respond. The UAE government media office referred Reuters to the UAE federal customs authority, which also did not respond.

Not all the discrepancies in the data analysed by Reuters necessarily point to African-mined gold being smuggled out through the UAE. Small differences could result from shipping costs and taxes being declared differently, a time-lag between a cargo leaving and arriving, or simply mistakes. And gold analysts say some of the trade, especially from Egypt and Libya, could include gold that has been recycled.

But in 11 cases, the per-kilo value that the UAE declared importing is significantly higher than that recorded by the exporting country.

This, said Leonce Ndikumana, an economist who has studied capital flows in Africa, is a “classic case of export under-invoicing” to reduce taxes.
Matthew Salomon, an American economist who has researched the use of trade statistics to identify illicit financial flows, said the issue deserves scrutiny.

"Persistent discrepancies in the trade of particular goods and between particular countries ... can identify significant risks of illicit activity," he said.

Over the past decade, high demand for gold has made it attractive for informal miners to use digging equipment and toxic chemicals to boost the yield. Contaminated water is returned to rivers, slowly poisoning the people who need the water to live.

Small-scale miners have long used mercury – easy to buy at around $10 for a thumb-sized vial – to extract flecks of gold from ore, before sludging it away. Mercury’s toxic effects include damage to kidneys, heart, liver, spleen and lungs, and neurological disorders, such as tremors and muscle weakness. Cyanide and nitric acid are also being used in the process, according to researchers and miners in Ghana.

Industrial mining companies have also been responsible for pollution, ranging from cyanide spills to respiratory problems linked to dust produced by mining operations. But almost a dozen states including DRC, Uganda, Chad, Niger, Ghana, Tanzania, Zimbabwe, Malawi, Burkina Faso, Mali and Sudan have complained in the past year about the harms of unauthorised mining.

Burkina Faso has banned small-scale mining in some areas where al Qaeda-linked Islamists are active, and earlier this month Nigeria’s government suspended mining in the restive northwestern state of Zamfara, saying intelligence reports established what it called “a strong and glaring nexus” between the activities of armed bandits and illicit miners.

Strong prices have fuelled the boom. Today, gold trades at over $40,000 per kilo, which is below a peak from 2012 but still four times the level of two decades ago.

Western investors want gold so they can diversify their portfolios; India and China want it for jewellery. But most Western companies – and the banks that finance them – avoid handling non-industrial African gold directly.

They are unwilling to risk using metal that may have been mined to fund conflict or that may have involved human rights abuses in, for instance, DRC or Sudan. Various Uganda-based traders have been sanctioned for handling gold smuggled out of DRC.

In other states, including the UAE, these concerns have been less of a problem. Over the last decade, gold from Africa has become increasingly important for Dubai. From 2006 to 2016, the share of African gold in UAE’s reported gold imports increased from 18 percent to nearly 50 percent, Comtrade data showed.

The UAE’s main commodity marketplace, the Dubai Multi-Commodities Centre (DMCC), calls itself on its website “your gateway to global trade.” Trading in gold accounts for nearly one-fifth of UAE’s GDP.

However, no big industrial companies reached by Reuters – including Anglogold Ashanti, Sibanye-Stillwater and Gold Fields – say they send gold there. Reuters contacted 23 mining companies with African operations, the smallest of which produced around 2.5 tonnes in 2018: 21 of them said they did not send metal to Dubai for refining, the other two did not respond.

While the big South African miners have local refining capacity, the main reason others gives is that no UAE refineries are accredited by the London Bullion Market Association (LBMA), the standard-setter for the industry in Western markets.

The LBMA is “not comfortable dealing with the region” because of concerns about weaknesses in customs, cash transactions and hand-carried gold, its chief technical officer Neil Harby told Reuters. Investigators and people in the gold industry say the ease with which smugglers can carry gold in their hand-luggage on planes leaving Africa helps gold flow out unrecorded. And limited regulation in UAE means informally mined gold can be legally imported, tax-free.

Gold can be imported to Dubai with little documentation, African traders told Reuters.

Sanjeev Dutta, head of commodities at DMCC, said in January that the centre is building strategic relationships with most gold-producing countries on the African continent, “and we are very confident of how that production is done and how responsible“ it is.

Over the past 12 months, he said, DMCC has firm ed up a standard for refineries, called Dubai Good Delivery, which he said is very strict on responsible sourcing and sustainability.

“We track right from responsible sourcing to sustainable development, things like human rights etc.,” he said. “We demand export certificates.”

A “very limited” number of refineries accept gold that has been imported as hand luggage, Dutta said, but gave no figures.

Some African miners are swapping their pickaxes and shovels for diggers and crushers – increasing production volumes exponentially. Regulation remains scant, and accidents are frequent.

In one week this February, three accidents at illegal mining operations in Zimbabwe, Guinea and Liberia claimed the lives of more than 100 people.

Often, miners must surrender a cut of their output, as commission, to the people who control a pit, let out the equipment, or buy and sell the gold. NGOs such as Global Witness and Human Rights Watch have documented child labour, corruption and links to conflict at some of these mines.

At one mine in Zimbabwe visited by Reuters, people said they had to hand over some of their find before they would even be allowed out of the pit.

Reuters presented its analysis to 14 African governments. Of them, five said it reflected an existing concern about gold being smuggled out of their countries that they are trying to address. One said they did not think gold smuggling was a problem for them. The rest declined to comment or did not respond.

 Governments across Africa are trying to work out how to manage a sector that, whatever its risks, provides a livelihood for many of their citizens, and which could be harnessed as a source of revenues.

Some, including Ivory Coast, are taking gradual steps to regulate their informal mining operations. Ghana and Zambia have sent security forces into mining areas to halt operations so miners can be registered and regulations put in place. Ghana, concerned that a rush of mainly Chinese-lead ventures is harming the environment, has arrested hundreds of Chinese miners and expelled thousands in the past six years.

At the end of last month, Ghana temporarily banned the import of excavator equipment to try to stem a surge in illegal mining using heavy machinery.

“I understand that Dubai is the destination for this gold. But since (the trade) is fraudulent, I have no details.”

In Sudan, one of the continent’s biggest producers, the government has unveiled a $3 billion plan for private banks to work with the central bank to buy gold from small-scale miners, offering prices that would make it less attractive to sell on the black market.

A Tanzanian parliamentary report estimated that 90 percent of annual production of informally mined gold is smuggled out of the country. The government wants the central bank to buy this up. In March, President John Magufuli launched a plan to establish hubs where the trade would be formalised by offering access to financing and regulated markets.

In Burkina Faso, Oumarou Idani, minister of mines, believes his country is leaking gold to UAE on a massive scale. Of the 9.5 tonnes of gold the government estimates informal miners dig up each year, just 200 to 400 kg are declared to the authorities, he said.

Much of the gold is smuggled from landlocked Burkina Faso to its Atlantic coast neighbour Togo, according to the minister. In Togo, virtually no taxes are imposed on gold.

Togo’s director of mining development and controls, Nestor Kossi Adjehou, said informal mining is “an area that we have not properly figured out.” For now, he said, Togo saw no reason to suspect gold was being smuggled through the country.

“I understand that Dubai is the destination for this gold,” his Burkina Faso neighbour, Minister Idani, told Reuters in an interview last year. “But since (the trade) is fraudulent, I have no details.”
A mix of political populism, higher commodity prices and the expectation electrification will spur demand for some raw materials has led resource-holding governments to change the rules for miners operating in their countries.

In most cases, governments are seeking to increase their share of profits, rather than all-out resource nationalism, although Mongolia has been trying to nationalise a stake in a copper mine.

Some governments see the hardened stance of other countries as a chance to lure investment.

Ethiopia is rolling out pro-business reforms after PM Abiy Ahmed swept into office last year.

Typically, resource holders have increased the demands they make of international companies when commodity prices rise.

Commodity prices have been increasing since the start of this year, but are relatively low and were still recovering from the crash of 2015-16 when the latest wave of resource nationalism began.

In Africa, Tanzania, regarded as an extreme example, turned on the miners after President John Magufuli swept to power in late 2015 pledging to secure a bigger share of the country's natural resource wealth.

Industry insiders and lawyers say political populism and social media are impelling calls for a greater share, beginning with the local communities around mines.

They also say investment by China and to a lesser extent Russia increases the leverage of resource-holding governments.

"China's growing investment in mining projects has helped spur resource nationalism by giving many resource-rich countries an alternative to Western investment," Henry Hall, associate director at Critical Resource advisory firm, said.

In Africa, Democratic Republic of Congo, Tanzania and Zambia have been seeking more of the profits from copper, cobalt and gold.

Democratic Republic of Congo in June last year signed off regulations to implement its new mining code that raised royalties and taxes.

Major mining companies, such as Glencore and Barrick, have opposed the code and are seeking negotiations and ways to increase pressure.

Zambia raised royalties from January and introduced a 10 percent tax when the price of copper exceeds $7 500/t.

Zambia also plans to replace value-added tax with a non-refundable sales tax to help reduce public debt, but has delayed the move until July, pending further consultation.

Mining executives say a first response is to withdraw exploration funding.

The biggest listed miners say they are focusing their exploration in countries with low political risk.

Democratic Republic of Congo's reserves, however, are tempting rich and include copper and cobalt, needed for an expected upturn in demand for battery vehicles, which gives the government bargaining power.

Figures from S&P Global Market Intelligence show falls in exploration spending in Tanzania, Zambia and Mongolia last year, while investment in Democratic Republic of Congo rose as Ivanhoe Mines and its Chinese partner Zijin Mining have invested in developing a copper mine.

Globally, exploration spending climbed, but is far below the peaks of 2012 at the height of the commodity boom.

Spending was highest last year in countries considered mining-friendly, such as the US and Ecuador, which is welcoming Western explorers into its copper prospects as it seeks to diversify from oil.

Companies have threatened to leave when the terms of engagement change to their detriment, but resource-holding governments know firms are reluctant to do that when they have invested in building a mine.

Lawyers and mining executives say companies have become more careful about where they invest in the first instance.

As sustainability has shot to the fore following the Vale dam disaster in Brazil in January, the need to get all sections of society on side has increased.

"One of the most important aspects to have a good understanding of is the community landscape - without the social licence, mines will either not start up, or will be disrupted by community activism," Warren Beech, a partner at law firm Hoganlovells, said.

While the overall mood is cautious, China and Russia have a higher risk appetite, potentially providing negotiating power for resource-holding governments.

"The risk appetite varies, with China and Russia seemingly having a greater appetite for risk, probably to support their strategic intent to control the life cycle ... and to develop geopolitical influence," he said.

As a last resort, international miners can threaten arbitration, which lawyers say is cheaper than political-risk insurance.

Dispute settlement lawyer Samuel Pape of Latham and Watkins said miners can seek legal protection by, for instance, investing through a company incorporated in a country that has a bilateral investment treaty with the resource-holding nation.

"Many disputes can be resolved through negotiations without the need to commence proceedings under an investment treaty, though the potential for such an arbitration can provide important leverage," he said.

SOURCE: REUTERS
LT-Turbo Africa has been awarded the contract for the supply and installation of a turn-key solution for underground ventilation and fumes extraction for Kamoa Copper SA, located 25km outside of Kolwezi, DRC.

Kamoa Copper SA forms part of the Kamoa-Kakula Copper Project, which is a joint venture between Ivanhoe Mines, Zijin Mining Group and the government of the Democratic Republic of Congo.

Located within the Central African Copperbelt, approximately 25 kilometres west of the town of Kolwezi and about 270 kilometres west of the provincial capital of Lubumbashi, the Kamoa-Kakula Group Project has been independently ranked as the world’s largest, undeveloped, high-grade copper discovery.

TLT-Turbo Africa is designing, manufacturing and supplying a Bifurcated Axial Flow Fan Station for the extraction of mine fumes as well as Auxiliary and Booster Fans for Kamoa’s underground operation.

The company will also oversee the installation of the fans and will provide assistance with commissioning.

Kamoa Copper ventilation project is the first of many projects of strategic importance within the Sub Saharan Africa region that the company is involved in.

The contract was secured in October 2018, with commissioning due to begin in July 2019. TLT-Turbo Africa was appointed by DRA Projects, who are handling EPCM (Engineering, Procurement, and Construction Management) on the project. DRA managed the tender process and are currently overseeing the execution phase.

According to TLT-Turbo’s Madeleine Pretorius, the project presents unique challenges from a logistical point of view. The site is remote, and it involves multiple border crossings and often poor road conditions.

*This means complicated logistic solutions. TLT-Turbo has the benefit of a broad suite of options to minimise the need for abnormal or complex loads,* said Pretorius.

She adds that the TLT-Turbo Africa offering and approach positions them as a preferred supplier for ventilation solutions in challenging locations.

“We provide an energy efficient solution where power costs are high, and availability can be erratic. Our product is designed for long-term reliability and durability, with simple maintenance requirements and minimal downtime, which is critical for our remote clients.”

Mike van Oerle, Sales Manager at TLT-Turbo Africa says TLT-Turbo’s approach will provide several benefits to Kamoa’s operations.

The benefits include standardised equipment that is designed for simple installation and maintenance, which means that TLT-Turbo’s fans can be maintained by the client on site, without the need for costly expert inspections.

“TLT-Turbo is providing highly efficient products to meet Kamoa’s interim ventilation and power requirements, with flexibility for future re-deployment at an alternative ventilation position.”

Both van Oerle and Pretorius assert that TLT-Turbo Africa’s delivery of the scope of work on this specific project speaks to TLT-Turbo Africa’s capabilities and expertise. The collaboration with DRA has paved the way for excellence in service delivery.

“Working with an experienced EPCM company such as DRA, our project team is able to draw on their unparalleled knowledge of the Sub Saharan African mining environment. Both teams work together to provide solutions that address the challenges experienced by our customers,” said Pretorius.

“Our ability to understand our customers’ requirements led to a cost-effective solution, focusing on total cost of ownership. Combining this solution with an experienced projects execution team, means that we can ensure Kamoa receives high-quality products and on-time delivery,” Oerle said.
As part of efforts to ensure Mopani has a viable future the company is planning to cease operations at Mindola North Shaft and Central Shaft.

Nebert Mulenga, Public Relations Manager for Mopani Copper Mines said the miner is to focus on essential capital projects which include the Synclinorium Concentrator, Mindola Deeps shaft and Henderson shaft in Mufulira.

“We believe this approach will enable us to focus on achieving both safe and productive outcomes which are essential to position Mopani for a successful future,” said Mulenga.

The development comes despite significant investments across the operations – training programmes, operational efficiencies and investments into shafts, infrastructure and mining equipment.

“We have not been able to get to a level of safety, output and cost that is sustainable.”

Mulenga said the reason for the closure of the shafts is that they have reached the end of their economic life.

“Their closure was always part of the plan as we commissioned the new shafts, however, the action is being taken sooner than originally planned because the company has limited resources and can no longer afford to operate these old and inefficient shafts.”

According to the company, the closure of these two ‘uneconomic shafts’ allows Mopani to apply the funds provided by Glencore towards the completion of the expansion projects, which represent the future of the company and mining by Mopani on the Copperbelt.

Meanwhile Mopani Copper Mines has met with the unions and relevant government ministries to provide an update on safety and the necessary operational steps that need to be taken.

“We anticipate that these measures will regrettably result in the loss of direct employee and contractor jobs. Mopani will engage with the Unions and all affected employees and contractors to provide them with the appropriate support,” said Mulenga.
Performing a proper pressure calibration requires equipment and connectors that are dependable. With a leaking pressure source, keeping pressure stable at a calibration point long enough to take a reliable reading can be difficult. Slow leaks can require technicians to constantly fine tune and adjust pressure applied from a pump, which makes it difficult for the system to settle. After the desired pressure set point is reached, it’s recommended that systems settle for several seconds or even minutes prior to testing so a more accurate and repeatable test result can be performed.

SLOW LEAK

While slow pressure leaks caused by damaged hoses, worn fittings, or improper connections are common, there are several steps technicians can take to ensure a better calibration experience.

1. Test and debug pressure test systems before entering the field to reduce unnecessary trips back to the shop.
2. Try to decrease the number of pressure connections by using the correct hose length and removing extra fittings.
3. Ensure that the test equipment is properly mounted.
4. Mitigate leaks by using special-purpose test hoses.

MULTIPLE TOOLS

Documenting pressure calibration results is important for the purpose of maintaining accurate critical instrument records, but the number of steps associated with documenting the procedure, and the number of tools required for the average pressure calibration can make the task difficult. For instance, a typical pressure calibration could require a pressure calibrator, pressure module or gauge for measuring pressure, a pump to generate pressure, and multiple hoses and fittings between the devices (including the connections to the pressure transmitter itself).

Before going to the field, not only do technicians need to prepare for specific calibrations by testing their setup and making sure the equipment is properly calibrated, they also need to carry all the appropriate test components with them.

And before testing begins, technicians need to either write out the test procedure or fill in a method sheet. During the procedure, they must document the pressure being applied and the resulting mA being measured, and then determine whether the unit under test passes or fails according to the determined criteria.

If the unit under test fails, the technician will need to adjust the system as necessary and begin the testing procedure again.

Beyond having all the right components, the technician needs to ensure that the pressure measurement tool used is accurate enough to calibrate the transmitter or other device being tested.

The tools required and accuracies needed vary from one device to another, further compounding the difficulty. Special-purpose test hoses and connectors can make pressure connections easier and reduce the likelihood of leaks, eliminating one source of testing difficulty.

TEST POINTS

Fluke 729 makes pressure calibration easy

Pressure calibrations in process manufacturing environments rarely require testing to occur at a single test point. In fact, a typical pressure calibration can require anywhere from three to eleven pressure test points. Trying to adjust and fine tune system pressure for these specific points can be difficult and time consuming.

Each individual point requires technicians to increase or decrease pressure by either pumping the system up or releasing pressure, and then to fine tune the pressure using the fine adjust vernier of the test pump.

This process can be simplified by carefully matching the selected hand pump to the pressure range of the transmitter being tested. For instance, some portable pneumatic pumps have pressure ranges that go up to 600 psi / 40 bar, but it can be difficult to accurately increase pressure beyond 400 psi / 28 bar.

There are, however, newer portable pumps that can be easily pumped and adjusted to over 1,000 psi / 69 bar if the primary calibration need is over 400 psi / 28 bar.

PRESSURE SWITCH

Calibrating a pressure switch can be a time-consuming task and repeatability is key to success. Achieving repeatability requires you to apply slow changes in pressure to the switch as it approaches its defined set or reset point.

Not only do you need to determine where the switch sets, you need to make sure that the vernier or fine adjustment mechanism of your test pump has the capability of varying pressure up to the set point and back to the switch reset point.

Since these adjustments are manual, achieving repeatable measurements of the set/reset points can be difficult. With practice, technicians can get the fine adjustment of the pump within range of the set and reset point pressure with more regularity.

This process can be further simplified by selecting a pump with a wide fine adjustment range, allowing you to more accurately make adjustments to meet your measurement needs.

However, the Fluke 729 Automatic Pressure Calibrator has been designed specifically with process technicians in mind for the purpose of simplifying the pressure calibration process while providing faster, more accurate test results.

Technicians know that calibrating pressure can be a time-consuming task, but the 729 makes it easier than ever with an internal electric pump that provides automatic pressure generation and regulation in an in an easy-to-use, rugged, portable package.

The ideal portable pressure calibrator, the 729 will automatically pump to the desired set-point when you simply type in a target pressure. You can then use its internal fine adjustment control to automatically stabilize the pressure at the requested value:

- Automatic pressure generation and regulation to 300 psi / 20 bar
- Easily document the process using onboard test templates
- Automatic internal fine-pressure adjustment
- Measure, source and simulate 4 to 20 mA signals
Fluke offers two precision pressure calibrators

Fluke’s 721 precision pressure calibrator with dual isolated sensors for gas custody transfer applications for pressure calibration and temperature measurement allows for simultaneous static and differential pressure measurement within a single tool.

Comtest is offering the new equipment Fluke 700G31 precision pressure gauge calibrator – a rugged, high-quality pressure gauge calibrator – delivers fast and accurate test results.

The tool is easy-to-use and reliable construction allows for precision pressure measurement from 15psi/1 bar to 10,000 psi/690 bar with an impressive 0.05 percent accuracy.

Above all, it is compatible with most hydraulic and pneumatic test pumps and can be combined with one of the Fluke test pump kits (700PTPK or 700HTPK) for a complete pressure testing and calibration solution.

The 700G/TRACK software allows for the upload over 8,000 pressure measurements which are logged in the field to a table or PC.

Harsh environments thermometer hits the market

Fluke 64 MAX IR thermometer with internal memory, unattended monitoring, improved accuracy, increased battery life, as well as the precision needed to do the job accurately is the latest.

The new equipment is designed and tested to survive a three meter drop. And the lightweight, compact infrared thermometer works in the harshest of environments and even when unattended.

According to the manufacturers, the thermometer’s applications include industrial maintenance, electrical and HVAC industries.

Features of the Fluke 64 MAX IR are:

- Precise laser technology for more accurate and repeatable measurements
- Temperature accuracy of up to ≥ 0 °C: ± 1 °C or ± 1 % of reading whichever is greater with 20:1 distance to spot ratio (64 MAX)
- Flashlight (64 MAX) and large, easy-to-read backlit LCD display for easy viewing even in dark environments
- IP54 rated for extra protection against airborne contaminants
- Set time and desired interval between measurements and Auto Capture will capture spot temperatures unattended (64 MAX)
- 99 data point logging (64 MAX)
- Displays the minimum, maximum or average temperature, or the difference between two measurements
- Hi and Lo alarms for rapid display of measurements outside set limits
- The 62 MAX+ has dual rotating lasers to help identify area to be measured. The measurement area is the spot between the dots (62 MAX and 64 MAX have 1).

The local distributor of Fluke test and measurement tools is Comtest.
For the
TRENDS & TECHNOLOGY

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Kobold compact KAH series airflow velocity transmitters, ideal for accurate ventilation control in Building Automation Systems (BAS) and heating, ventilation and air-conditioning (HVAC) applications has reached the local our shores.

Instrotech is offering the Kobold’s KAH air flow transducer on the local market.

The new equipment incorporate innovative hot film anemometer technology which guarantees good accuracy at low airflow velocity and makes the sensor highly reliable and heat resistant against dust and dirt.

In addition, the technology is superior to conventional anemometers with hot wire sensors or NTC bead thermistors.

“The sensor is much more insensitive to dust and dirt than all other anemometer principles which translates to high reliability and low maintenance costs. And the configuration equipment allows air velocity adjustment of the sensor,” said Instrotech.

Apart from measuring air flow velocity, the KAH air flow transducer transmits a normalized signal of 4-20 mA or 0-10 V.

“The measuring range and the response time can easily be selected with jumpers as per requirement.”

Kobold’s KAH air flow transducer specifications are:

- Selectable working range: 0 ... 10/15 /20 m/s
- Output signal: 0 ...10VDC or 4 ...20mA
- Supply voltage 24VAC/DC
- Low angular dependence

**TRENDS & TECHNOLOGY**

Measuring Air Velocity in HVAC Systems

**Niger, GoviEx jointly develop Madaouela project**

Niger government and GoviEx have sealed a deal to rapidly progress Madaouela uranium project.

“This is the culmination of more than 12 years of relentless work and millions of man hours by GoviEx management and our Nigenien community.

“It takes time to get things done in a responsible, sustainable and professional manner,” said Govind Friedland, GoviEx’s Executive Chairman.

Friedland said the meaningful partnership with Niger are laying the foundation necessary to develop the Madaouela Project in a fair and equitable way for the long-term benefit of all stakeholders.

Meanwhile Hassan Braze Moussa, Niger’s Minister of Mines said the country has many mining investment opportunities and economic, social and political conditions that are conducive to the pursuit of development of a sector considered strategic.”

“The government has instituted a mining policy aimed at a mutually beneficial balance, while safeguarding the interests of the nation and investors.”

Key commercial terms agreed between Niger and GoviEx are yet to be finalized in definitive.

Meanwhile GoviEx believes the factors influencing the uranium market fundamentals and the uranium price are improving and continues to prioritize completion of a feasibility study, and negotiations with debt providers and off-takers interested in the Company’s long-term uranium development project.

Apart from Niger, GoviEx is a mineral resource company focused on the exploration and development of uranium properties in Africa.

GoviEx’s principal objective is to become a significant uranium producer through the continued exploration and development of its flagship mine-permitted Madaouela Project in Niger, its mine-permitted Mutanga Project in Zambia, and its other uranium properties in Africa.
South African based equipment supply company Instrotech is offering Kobold’s REG mechanical flow restrictors and rate regulators, with their simple yet effective functionality which are ideally suited to consumer applications and uniform supply to multiple consumers.

According to the company, once installed the REG limits flow to a preset value of throughputs of water, or of liquids similar to water, regardless of pressure fluctuations.

The flow restrictors ensure equilibrium, particularly in systems with many users and resulting pressure fluctuations caused by random flow conditions. In other words, the desired throughput is not exceeded.

In addition, the REG valve operates without power supply, keeping the flow rate of fluids constant with great accuracy (± 0.2 l/min) regardless of fluctuating inlet pressure.

The principle is impressive, yet uniquely simple and the constant flow is generated by two stainless steel spring plates of the regulating orifice, riveted together across each other, and which, depending on the differential pressure, open or close to a greater or lesser extent the ring or regulating funnel thus created.

Instrotech adds that the REG flow limiter can be used wherever a constant flow rate is required despite pressure fluctuations in the system, for example switching a consumer unit on and off.

The benefits of the instrument include being easy to assemble, compact design, reliable - no wearing parts, energy-saving, easy to fit and no auxiliary power required.

Instrotech says it is not only in the sanitation and heating fields that unwanted fluctuations in flow and temperature occur, but also in many areas of general industry and plant construction, such as, heat exchange, livestock, cooling circuits, building technologies, filtration, dosing, watering and humidification.
Why TULELA?

The uniqueness of TULELA combines the comprehensive value proposition enjoyed by our clients through unrestricted access to all business entities within the group including engineering, processing and mining. The members offer a combined mining industry related experience exceeding 85 years from which a solid foundation is formed to service the mining and private sectors. Although specifically focused on Mining, Processing, Engineering, Projects and Maintenance services, this collective experience ensures personal access to a specialised network of industry specific professionals while realising industry leading solutions.

The multidisciplinary approach and combined skillset reaching across operational and engineering disciplines offers a unique solution.

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Address: No. 8 Lubambe Road, Northmead, Lusaka Zambia
P.O. Box 39550 Northmead Lusaka Zambia
Looking to buy a New Truck? Look no further. The New Hino 500 Series Wide Cab has hit the Zambian Market. The arrival of the new Hino 500 Wide Cab model not only marks the first full model change of the 500 Series in fourteen (14) years, but also fills several important gaps from the Hino truck range in Africa.

Hino has been a significant player on the African Market for the past forty-five (45) years and is now gearing up to become an even stronger competitor with an enlarged product range including the availability of 6x4 models and automatic transmission in the 500 model line-up.

This series is a game changer as it is living up to being an innovative Brand. Look forward to appreciating the new features of the 500 Wide Cab. The Truck will be a good investment as it stands out with optional wheelbase of long size 4x2 and Super long size 6x2 models. Hino values the importance of segmenting and targeting Customers according to specific needs and wants. Therefore, our Zambian prospects and Customers will be at liberty to choose the type of suspension available for an on or off road suitable for Freight Carrier, Tippers and Mixers.

Research and Development

Researching on our customers’ expectations and industry acceptance of the New Hino 500 Wide Cab was imperative for the purpose of developing the product that fit the needs of the market. Indeed, Hino recognised the need to investigate the acceptability and adaptability of the new generation Hino 500 models not only in Zambia but South Africa as well, which happens to be an increasingly important country for Hino as it expands its coverage of the truck market in Africa, particularly in the Sub-Saharan region.

Empirical Evidence

Hino’s proud reputation for Quality Durability and Reliability is backed up by unmatched displays of reliability in the gruelling Dakar Rally; 29 consecutive finishes since 1991, without a single mechanical retirement, with eight successive 1-2 finishes in the category for trucks with engines of under 10-litres capacity between 2010 and 2019 covering a total distance of 419 950 km in these events, which clearly is an empirical evidence that the strategy has been bearing fruit in South Africa for several years and as such will be acceptable in Zambia.

Product Range

This new addition provides transport as it extends the 500 Series offering from 16-ton GVW upwards from five (05) to twelve (12) models. The existing Hino 500 series range below 16-ton GVW continues with upgrades these models range from 1018 Freight Carrier, 1326 Freight Carrier, 1326 Tipper, 1322 4x4 Dual Rear Wheel and 1322 4x4 Single Rear Wheel.

Product Enhancement

There has been a lot of improvement from this new addition. The layout of the chassis has been revised to provide more utility space for customers. Furthermore, a new wider front axle which provides increased load ability has been enhanced from 5.5 to 7.5 tons with a 7% tighter turning circle. The adoption of a trunnion rear suspension system improves durability and allows the fitment of a cross-differential locking system for 6x4 models.

Hino is proud to announce that the three engines are now used in the 500 series range, all with more power and torque than the engine fitted to the previous 500 series models. Interestingly, the New Hino manual transmissions are specified, either with the six-speed MX06 or nine-speed M009OD/DD with an option of Allison 3000 or 3500 fully automatic six-speed transmissions for certain models. Additionally, new rear differential with increased torque rating is well fitted for reliability and durability purposes.

Another new feature that improves Quality Durability and Reliability is a 65 mm wider radiator core for improved cooling. This new Hino 500 Wide cab has new exterior and interior styling with an extra step for easier ingress and egress.

The two cab mounting methods are semi-floating and full-floating (6x4 models) for enhanced comfort during ingress and egress.

Enhanced performance

The new 500 wide Cab model offer better performance without sacrificing fuel efficiency, with higher gear ratios resulting in lower engine revolutions. There are improvements in hill climbing, pulling off on a slope and acceleration. These changes equate to an improvement of 3.8% more power and 7.4% more torque from the JOB Lo and 12% more power and 19.5% more torque from the JOB HI.

Safety and security

Several important safety and security features have been incorporated in the new 500 series. These include a driver’s side airbag, seatbelts with emergency locking retractor, substantially improved headlight illumination on low beam, anti-skid (ABS) brakes, an engine immobiliser and central locking system.

Features - Comfort and Convenience

The dashboard and instrument panel have been redesigned for improved ergonomics. The instrument panel uses both analogue and digital instrumentation. Standard equipment includes air conditioning, cruise control, power windows and a radio/CD audio system. Access to the cab is made easier with additional sure-grip steps for both the on- and off-road cabs as well as a much larger inside cab grab handle.

After Sales Service

Hino has put in place processes which will ensure that customers will be satisfied after a purchase has been made through exceptional customer service delivery. This is being achieved through creating and implementing a 24 months/100,000 kilometre warranty, which excludes batteries, tyres and normal wear and tear items. Warranties can be extended where several optional service and maintenance plans can be tailored to customer’s needs.

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The original Gabion company has diversified over the past 20 years into several associated Geotechnical fields related to Mining, Civil Engineering, Coastal, Bio Engineering and the Industrial sectors. As a manufacturer celebrating 140 years from its original Headquarters in Bologna, Italy, it has expanded across the globe into 100 countries and has been operational from South Africa for over 60 years. It has been a privilege to service the African continent, and the following are but a few pictures of Projects, Construction and People.

**PROJECTS VENTURED AND MANY FRAMED**

Maccaferri enjoys operating in exotic locations and have completed Projects in Mozambique, Madagascar, Seychelles, Mauritius, Reunion, and Egypt. But Mining - although a difficult business - has drawn us to more remote locations, from Mauritania and Djibouti across to West Africa and then down south to East and Southern DRC, through Zambia and into the tamer Namibian desert to exercise our Designers, Project Managers and Engineers. They frequently traverse lonely and often isolated Mining locations to help support the entrepreneurs digging for Mineral Resources. Our expertise is often sought first in Capex infrastructure projects, and later with Opex consumable type solutions, when required for erosion control, water management and tailings dams.

**CONSTRUCTION & INSTALLATION OF PRODUCTS**

Contractors get an advantage of support with design and problem-solving solutions from Maccaferri, coupled with on-site training of their local and Mining staff. This training with SAICE approved courses, ensures technology know-how is transferred. Maccaferri considers it a duty to assist construction staff in acquiring new knowledge and improving their skills. Those who achieve a certificate of recommendation for demonstrating their skill gained, can apply themselves in similar community, rural and future mining work as it is targeted.

**MACCAFERRI TRAINING ACADEMY, CPD LECTURES AND ENGINEERING UNIT**

Maccaferri has for more than 50 years supplied training of unskilled labour through a range of competency classes in the field and up to the level of the University lecture halls, together with Engineering and Technical paper publications at Conferences. Maccaferri has promoted ongoing research and development for improvement of products and together with its Engineering employees and help from distinguished leaders in the industry on all continents, refined its understanding of the products and solutions it offers. This has encouraged the accumulation of information to enable formal course material to be generated. Industry interest prompted the establishment of a Training Academy for Contractor staff to achieve the highest level of installation knowledge and skill. Since the volume of technical knowledge and experience after over a century of business has placed Maccaferri in a leading position, it also seemed fair to systemize a transfer of technology within the Professional Engineering industry using formal Continuing Professional Development (CPD) lectures, which are certified and approved by Professional Societies to satisfy Academic criteria.

Additionally, the Specialist nature of the Geotechnical service supplied by the Maccaferri Engineering Unit to Consultants, Clients and Contractors required definitive boundaries to maintain a specific competency package, easily recognized as unique and useful to the various industries.

It is the aim of Maccaferri to encourage and promote a partnership with their Clients (Mining Houses, Consultants and Contractors) to ensure a satisfactory outcome for the responsible stakeholders.

**YOUR PARTNER FOR:**
- Engineering
- Cost estimate
- Procurement
- Manufacture
- Installation support

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CORPORATE NEWS

Discharger pierces single-use bulk bags

A new BULK-OUT™ Bulk Bag Discharger from Flexicon features a bag piercing receiving hopper and side-mounted flow promotion devices to feed downstream processes at ultra-high rates.

The BFC Series discharger features a cantilevered I-beam with electric hoist and trolley for loading a bulk bag without the use of a forklift, and lowering it onto the hopper’s four-bladed knife.

For applications that are suitable for single use bags, piercing the bag bottom from seam to seam reduces labour and cycle times by up to 95 percent, compared with connecting reusable bags to conventional unloaders, according to the company.

Pneumatically-actuated FLOW-FLEXER™ bag activators press and release opposite sides of the bag at timed intervals, promoting rapid and complete evacuation of free- and non-free-flowing materials.

The periphery of the bag bottom self-seals against a wide-diameter gasket at the rim of the hopper, eliminating the cost and additional headroom required for bag spout interfaces of conventional unloaders.

An optional dust plenum consisting of a hollow hopper rim vented to a plant dust collection system provides a secondary dust containment measure.

Compared with reusable bags, many of which are discarded after one use, single-use bags are typically less costly to purchase, and contain less material to be discarded or recycled.

The hopper transition charges an optional flexible screw conveyor that transfers free- and non-free-flowing bulk materials from large pellets to sub-micron powders, including products that pack, cake, seize, smear, fluidise or break apart, with no separation of blends.

Also offered are transitions for other mechanical or pneumatic conveying systems, or universal flanged outlets for connection to downstream processes.

Flexicon also manufacture tubular cable conveyors, pneumatic conveying systems, bulk bag conditioners, bulk bag fillers, bag dump stations, drum/box/container tippers, weigh batching and blending systems, and automated plant-wide systems to industrial or sanitary standards.
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Global productivity partner for the mining and infrastructure industries, Epiroc has announced intentions to focus on improving and developing the business further, this year.

"Besides the continued emphasis on innovation and new product development, a key focus will be on improving efficiency, agility and resilience throughout the company," said Per Lindberg President and Chief Executive Officer for the Sweden based company.

Last year, the company put a lot of effort into the split and listing. With cutting-edge technology, Epiroc develops and produces innovative, safe and sustainable drill rigs, rock excavation and construction equipment and tools.

Lindberg said the company’s service business continues to grow healthily.

"This has a positive impact on our overall profit and will contribute to our resilience going forward. Equipment revenues increased versus last year, but fell sequentially compared to the very strong last quarter, which had a negative effect on our cost efficiency in the quarter."

Lindberg said the working capital increased in the quarter, and continues to be a focus area for improvement though the operating cash flow was lower than in the previous quarter as a result.

Meanwhile, customer demand in the first quarter of this year was largely in line with company’s expectations, with equipment orders at similar levels as in the second half of 2018.

"Orders received were SEK 10,063 million, somewhat higher compared to Q4 2018 but an organic decline of five percent compared to a strong Q1 2018. The majority of mining equipment orders are still for expansion in or close to existing mines rather than for replacement," said Lindberg.

He said the aftermarket business remained strong, reflecting the solid activity in the market, both in mining and in infrastructure.

In addition, he highlighted that though customers continue to be active and relatively confident about the future, and the mineral prices are at healthy levels, there are still uncertainties related to the economic development.

"We see that our customers primarily invest in lower risk projects with focus on increased productivity and efficiency."

Lindberg said there are no clear indications that the current market situation will change and expect that the demand will remain at the current level in the near term.
ABOUT US
Saideepa Rock Drills Zambia Ltd. is a professionally run trading company with a manufacturing base in India. Our vision is to provide our customers with Sustainable Solutions through close cooperation with our customers and develop deep understanding of end user processes.
- Higher Productivity
- Lower Cost / Meter Drilled

BUSINESS SEGMENTS
- Mining & Construction
- Oil & Gas
- Water Well Drilling
- Exploration
- Directional Drilling
- Tunneling

PRODUCT LINES
- Down the Hole Rock Drilling Tools
- Top Hammer Rock Drilling Tools
- Rotary Drilling Tools
- Diamond Drill Tools
- Horizontal Directional Drilling Tools
- Soft Drilling Anchor Bolting Tools
- Rock Breaker Parts
- Rock Drill Parts
- Odex/Tubex Simultaneous Casing Systems

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Grabbing cranes are usually large machines with wide spans and high lifting heights. Not so the Condra grabbing crane installed in February at the railhead serving Sishen Iron Ore Mine, near Kuruman.

Completed in December and delivered by road in January, the crane is the final link in Sishen’s ore spillage recovery chain, using its 0,5 cubic metre clamshell grab to transfer dumps of ore spilled by the conveyor system and subsequently recovered, into railway cars.

This feature rich and finely engineered double-girder electric overhead travelling grabbing crane is a relatively small machine with a capacity of 1,5 tons, a span of just 7,2m and a lifting height of a fairly standard 5,7m.

Condra has previously manufactured much bigger grabbing cranes for various applications, such as the 25-ton 30m-span machine for a cement factory in Mozambique, but the Sishen specification called for a very high degree of operational precision, resulting in the need for low-tolerance engineering of the crane clamshell grab so that it can move smoothly in and out of the railway cars.

Working speeds are quick for the short distances involved. Cross-travel speed is 16m/min for the 7,2m end-to-end travel distance. Long travel speed is 32m/min for a gantry length of just 20 metres. Hoist speed is 6,2m/minute.

Condra spokesman explained that the design challenge lay in configuring a crab to operate within the relatively tight travel and lift dimensions.

"For a grabbing crane this is a very confined area in which to work. Spans and lifting heights are usually much larger," the spokesman said.

"There was also the design requirement to be able to dismantle the crane beyond the normal requirement of transporting an abnormal load by road, because shipping was scheduled to take place in the second half of December during the road network embargo on abnormal loads which allows free flow of peak seasonal holiday traffic," the spokesman explained.

Although the dismantling requirement was met and the crane completed on schedule, transport was for various reasons delayed to January.

The spokesman said that manufacture of the crane was relatively straightforward and standard, though the lead time of twelve weeks was tight.

On the factory floor, the challenge was to work with the galvanised grating needed for full-length walkways either side of the hoist. This material tends to distort when cut because of the internal stress caused by galvanising. Checker plate could not be used because of its propensity to collect dust.

Sishen’s grabbing crane is feature rich, with variable frequency drives incorporated throughout, a radio remote control with optional pendant control, downlights, four red-and-green proxy lights to indicate movement clearance on the gantry and grab, and a digital scale monitor on the remote control to show the exact grab load on a continuous basis.

There is a second, bigger digital scale read-out on the crane itself to transmit grab load status at a glance when not reading the remote control.

"As far as crane technology goes this was a very interesting crane to build, with several design and fabrication challenges," commented the spokesman.

"We are happy to have it in our portfolio of successfully engineered bulk handling products."
The geographical coordinates to the new container terminal on reclaimed land at the Port of Walvis Bay.

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Sandvik has launched two new carbide grades to the PowerCarbide family, expected to be the greatest carbide innovation in decades. According to the company, the development is the most significant carbide innovation in the rock drilling industry for decades.

Sandvik further says the new grades extend grinding intervals and service life by up to 30 percent compared with standard carbides.

The new PowerCarbide grades, GC80 (Gradient Carbide) and SH70 (Self-Hardening) give users several other benefits, such as lower cost per drilled metre, less time for changing bits and improved safety.

"Sandvik was the first company in drilling history to manufacture rock tools with cemented carbide and are working continuously on developing new and more advanced solutions.

The new PowerCarbide grades are based on improved knowledge about the wear of drill bits in different types of rock," said Robert Grandin, Product Manager for Underground Top Hammer at Sandvik Rock Tools.

Sandvik said the GC80 is developed for abrasive ground conditions with high silica levels in the rock.

“A new, unique method makes it possible to produce buttons that are wear-resistant on the outside, while the centre provides a toughness that pushes the service life and grinding intervals even further.”

The SH70, which is developed for hard, competent ground, is a grade with homogeneous properties throughout the material.

SH70 is called ‘self-hardening’ because the enhanced deformation hardening makes it more wear resistant as you drill with it. The surface hardness is continuously ‘refilled’, which means that the hard top never wears off.

Sandvik has more laboratory capacity and human resources for cemented carbide development than any other company in the industry.

“Controlling the whole chain, all the way from our own tungsten mine to the production of drill bits, is a unique enabler for developing groundbreaking rock tools,” said Grandin.

“Since we have the most advanced range of carbides, we almost certainly have something in our product range that is perfect for each customer’s conditions.”
C. P. ENGINEERING LTD.

40 YRS OF ENGINEERING EXCELLENCE

C.P. Engineering Ltd, a company formed in 1972 and was originally founded by an Italian. It was later purchased in 1975 by the current owners making the Company 100% Zambian owned. Over a period of almost forty years, C.P. Engineering Ltd has grown in size and now has a staff of over thirty eight employees and is sub-divided into four different sections, namely: The Machine Shop, Boiler Shop, Bulk Storage Warehouse and a Retail outlet.

THE MACHINE SHOP

The machine shop and the boiler shop are the two original sections of the Company where all our machining and fabrications are done. The machine shop manufactures various types of gears, sprockets, anchor bolts, pins, sleeves, couplings and numerous other products.

The Company was originally started with only a few machines, but over the years has built a healthy fleet of almost thirty different pieces of equipment which includes lathes, milling, drilling, boring, power saws, welding, pressing, rolling, guillotine and threading machines. All four sections of the Company are spread over an area of sixty five thousand square feet of space with a manager in each section.

THE BOILER SHOP

The boiler shop is involved in fabrication of tanks, repairs and rebuilding axles, repairing dumper truck bodies, bulldozer and excavator buckets, customized containers, and other items as per drawings. Trolleys are also manufactured and distributed to other hardware stores.

Most of the staff have been with the Company for more than ten years and are experienced in various aspects of engineering. C.P. Engineering Ltd has three full time engineers with more than fifty years of experience combined. Over the past years the Company has serviced several different industries such as textile, food & beverage, transport, construction and mining. With the advent of numerous new mines and several new major construction projects, the company is deliberately focusing more on servicing these sectors.

FASTENERS

The third section deals with wide range of fasteners. C.P. Engineering Ltd in recent years has become the country’s largest stockists of numerous types of bolts, nuts, washers, threaded bars, screws, and studs in mild steel, high tensile steel and stainless steel. No other dealer in the country carries as much variety of fasteners.

RETAIL SHOP

Lastly, the fourth section of the Company is the Shop. The storefront has been C.P. Engineering Ltd’s latest expansion to expose the range of fasteners to individuals and other Companies. Additionally, a lot other hardware items related to fasteners have been introduced such as Ring, Combination and Open ended spanners, Impact Wrenches, Screw Drivers, Torque Wrenches and Vices. Pipe Wrenches, Allen keys and complete mechanics, fitters and electrician tool boxes. Items such as welding machines, boiler shop supplies, machine shop tooling, heavy duty jacks, shackles, and numerous other supplies can be found. C.P. Engineering Ltd is an Authorized Exclusive Dealer of High Quality world renowned HEYCO and HYTECH tools of Germany who are also the principle suppliers of all major tools to Mercedes Benz, Audi, Volvo, VW, and MAN trucks of Europe.

In the field of machining tools for the workshop, CP Engineering Ltd are the exclusive agents in Zambia for PILOT TOOLS (PTY) LIMITED of South Africa. Pilot is one of the leading manufacturers of tungsten carbide blanks for the mining industry. Additionally, they also manufacture tungsten carbide metal cutting inserts, brazed turning tools, brazed boring tools, brazed threading tools and also tool holders for the engineering industries.

The management and the engineers of C.P. Engineering Ltd are always available for consultation and professional advice.

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Our Services:

- MECHANISED DEVELOPMENT AND TUNNEL SUPPORT
- UNDERGROUND LARGE EXCAVATIONS AND CONSTRUCTION
- ENGINEERING SOLUTIONS AND CONVEYOR SYSTEMS INSTALLATIONS
- ROBOTIC SHOTCRETING AND TOTAL MINE SUPPORT APPLICATION
- PLANT AND EQUIPMENT SUPPLY
- TURN KEY MINE AND PROJECT MANAGEMENT SERVICES

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