HB Thom Theatre reaches new heights

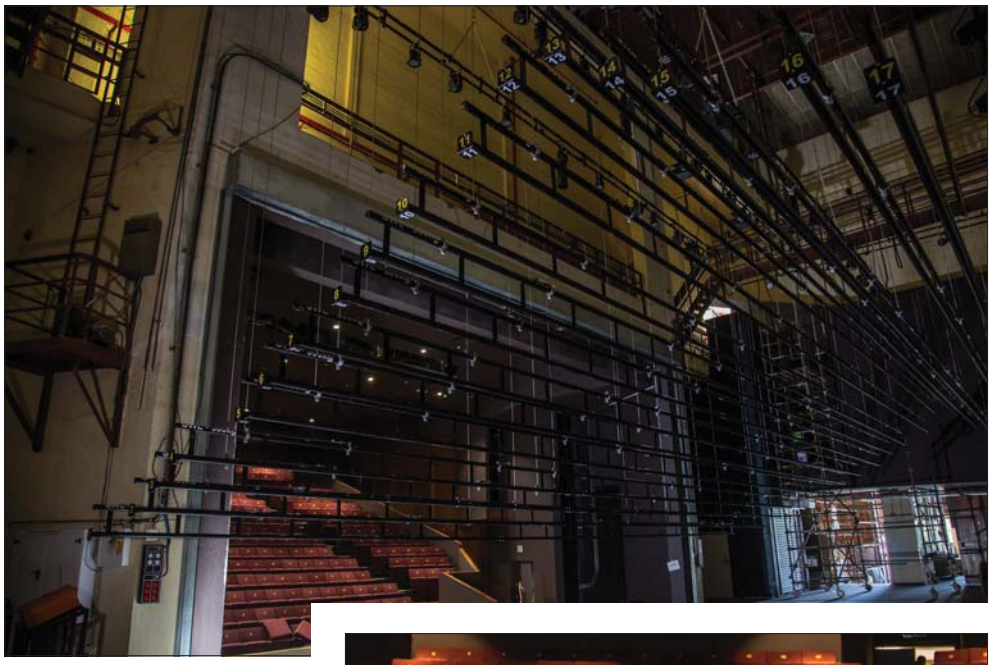
LSi discovers how a South African university theatre made history by installing the first fully automated SIL 3 scene hoisting system in the country . . .

[South Africa] Situated in the heart of South Africa's Western Cape province, Stellenbosch University has continued its legacy of investing in the development of South Africa's artistic community with a recent upgrade of the institution's extensive drama department, home to the HB Thom Theatre.

A key component in the institution's current infrastructure modernisation project at the HB Thom is a fully programmable scenery hoist system, manufactured in Germany by ASM Steuerungstechnik. Installed by local ASM distributor DWR Distribution, the installation has brought the HB Thom Theatre's scenery hoisting system in-line with more than 400 international theatres that have adopted the technology in recent years - and represents the first installation of its kind in South Africa.

The HB Thom Theatre opened its doors in 1965, largely due to the vision of university rector Hendrik Bernardus Thom, who instituted the first chair in Drama at a South African university in 1961. Thom, together with then head of drama, Fred Engelen, led the campaign to establish a university theatre to afford students and staff the opportunity to develop and stage original works. Almost 50 years later, the HB Thom Theatre is cherished not only by the University of Stellenbosch students but also by the broader community, as a cultural asset that consistently presents student and professional work while being a platform for community and youth-based development theatre.

Respecting the theatre's unique importance, the university administration recently committed to upgrading the venue's infrastructure to ensure that students and staff are afforded the opportunity to gain both technical and artistic experience in a facility comparable with modern theatres across the world. In addition to new lighting and control, the HM Thom is now home to the first fully automated and programmable ASM theatre hoisting system in the country.



↑ The fly bars as seen from the stage

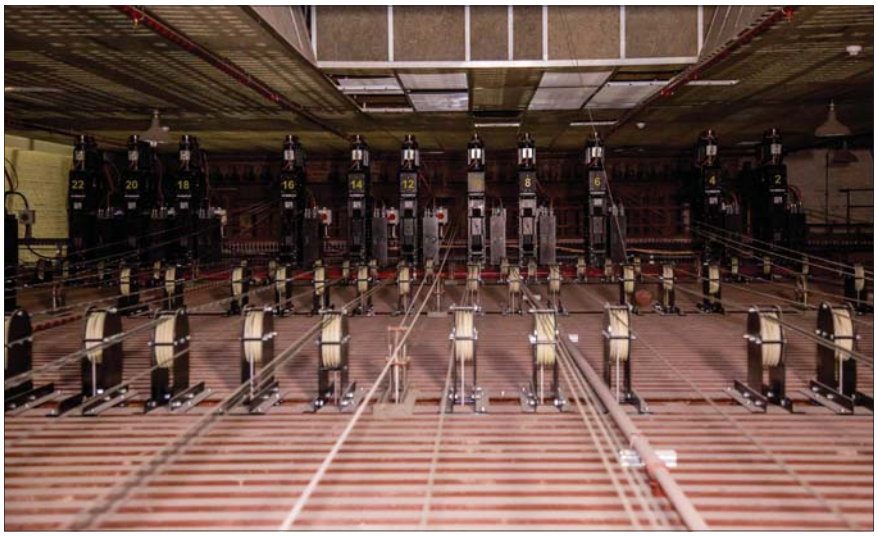
→ DWR's Keith Pugin, Rob Young and Bruce Riley

↓ Left: ASM LC-8 Hoist Control Rack; Right: Bruce Riley with ASM HCWA Twin Master Hoists

→ Facing page: View of the fly floor grid where the pulley system and HCWA Twin Master Hoists are located

OUT WITH THE OLD, IN WITH THE NEW

Central to the refurbishment is the replacement of the facility's 53 year-old counterweight rigging system with a fully programmable scene hoist system. Following extensive consultation, the University of Stellenbosch commissioned DWR Distribution to supply and



install the ASM HCWA hoist system, which is engineered to ensure that a traditional theatre counterweight flying set can be replaced by a scenery hoist effectively, making the upgrade as effortless and cost-effective as possible.

According to ASM, the HCWA scenery hoist is up to 50% lighter than traditional winches and is currently the narrowest winch on the market; the lightweight design also significantly reduces forces on stage structures and opens up new installation possibilities, including flexible hanging on head pulley structures or on wall installations.

Depending on the design, each winch can move a maximum load of one tonne up to 34m using between six and 12 installed ropes at just 45dB. Once installed, the scenery hoist system is fully automated and programmable, allowing theatre technicians to pre-programme set changes for an entire production.

Before the ASM scenery hoist system was installed, however, a comprehensive structural analysis was carried out by DWR together with ASM engineering consultants, who approved mounting the new hoists on top of the theatre's existing grid. On completion, the installation comprised 24 HCWA Twin Master Hoists, which feature ASM's two-channel safety winch concept and narrow construction.

Rob Young of DWR Distribution, who served as a team leader on the project, explains: "The installation included replacing the old pulleys and bars on the grid with new units. During installation, we split the hoist in half, as there was a logical place where we could undo a few pins, enabling us to separate the unit into two. We then made a gantry crane off the top of the back wall of the theatre at approximately 16m high using electric chain hoists to haul the units up."

FULL AUTOMATION

According to Albert Snyman, theatre manager at the HB Thom, a key requirement of the new scene hoisting system had been to be fully automated and programmable, which the ASM HCWA system satisfied. Controllers for the hoists are located on the grid, with four controllers in a rack each operating eight hoists. A three-phase power cable together with a network cable run to each power stack. The network cable runs down to stage level and connects to either an automated, programmable, Master Desk, CD1, or the smaller RC128 controller, located on a trolley.

"The control system for the ASM Hoist System is very similar to a lighting desk," explains Young. "A programmer can instruct a bar to come down with the use of a touchscreen and joystick. When the bar is at the desired height, the programmer simply records the position and programmes it in. Continuous load monitoring on the flybars is shown in realtime on the display, which provides accurate overload and underload protection."

While there are South African theatres that currently use semi-automated hoist systems, the fully automated ASM hoist system that has been installed at the HB Thom is the most advanced theatre hoist installation that DWR has implemented using ASM in South Africa to-date. Snyman admits he was initially a little concerned about students' ability to adapt to the new technology, but has seen a positive response from the student body. "The interface is user-friendly, easy to understand, and the students are taking to the system with ease. One of the interesting things about technology is that it breeds necessity, ingenuity and creativity. I do see that the students sometimes struggle to understand what they can and can't use the system for, which is very constructive, as means that they are challenging themselves and exploring all of the possibilities that are suddenly available," explains Snyman. Suffice to say, those learning the ropes at HB Thom Theatre would have a future-proof system for years to come.

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