

FORCON INTERNATIONAL

JOHN D. GLOVER, P.E.

SUMMARY

Mr. Glover has over 27 years of experience in heavy industry with projects including API storage tank and crude terminal design, bulk material handling facility design for marine and rail terminals, (coal, grains, iron ore, wood pellets, cement, bauxite, etc.) MEP design for commercial and industrial projects, equipment procurement and installation (container cranes, grab ship unloaders and stacker reclaimers), design of sub-sea umbilical storage carousels, shipyard fabrication facilities and rail yard design for heavy industry.

EDUCATION

Bachelor of Science in Mechanical Engineering - University of South Alabama, Mobile, AL

REGISTRATIONS & CERTIFICATIONS

Registered Professional Engineer in the following States:

- Alabama # 22494
- Florida # 64363
- Georgia # PE031039
- Louisiana # PE.0032380
- Michigan # 6201062206
- Mississippi # 17305

PROFESSIONAL ASSOCIATIONS

American Society of Mechanical Engineers, Member
Exam Standards for National Council of Examiners for Engineering and Surveying (NCEES)

CAREER HISTORY

FORCON International – Independent Contractor

Conducting forensic engineering and expert witness services in his fields of expertise.

Cowles, Murphy, Glover & Associates, LLP, Mobile, AL - Partner

- Managing partner in full service engineering design firm.
- Facility designs including IPSCO Axis, AL, GE Wind Energy, Pensacola, FL, GE Plastics Burkville, AL, Arkeama, Axis, AL and C&G Boatworks, Mobile, AL.
- Design of HVAC systems for various industrial and commercial applications including schools, multi-office commercial complex, churches, TAPPI paper test labs and MCC equipment buildings at several area paper mills and industrial facilities.
- Design of complete plumbing systems including various industrial and commercial applications.
- Design of water main, gravity sewer and low pressure main and fire water main.
- Design of basic electrical power distribution systems for commercial projects including site lighting, restaurant power distribution, building lighting and general power distribution.

Gottlieb, Barnett & Bridges, LLC, Mobile, AL - Mechanical Engineer/Project Manager

- Mechanical design of marine and industrial facilities, cranes, conveyors, barge and rail facilities.
- Design of grain elevator headhouse, new silos and complete refurbishment of the existing headhouse and silos for the Alabama State Docks.
- Design of two double wing stackers for stacking coal and iron ore at McDuffie Terminals, Alabama State Docks. Design of McDuffie Coal Terminals, rail loop track, rail load out and rail dump.
- Design of over 10,000 linear feet of belt conveyors including all transfer/drive towers, two rail loading towers, one barge loading tower and one ship unloader.

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- Design of water main system and utility gas piping system at Atlantic Marine Shipyard, Mobile, AL.
- Refurbishment of several existing cranes and unloaders, (i.e. American R-20 at Atlantic Marine, Mobile; Washington Iron Crane at Atlantic Marine, Jacksonville; RG-III at Chipco, Mobile).
- Design specifications for the procurement of a 1000 tph Grab Ship Unloader (GSU) for McDuffie Terminals, Alabama State Docks including site visits to Shanghai, China.

American Tank & Vessel, Mobile, AL - Mechanical Engineer/Co-op

- Drafter and designer of API 650 and API 620 storage tanks.
- Design calculations for ASME Section VIII pressure vessels including spherical vessels and heavy wall nozzles design.

HIGHLIGHTED MECHANICAL ENGINEERING PROJECTS

Lift-Systems HHT (2014-2015) – Served as consulting engineer for the mechanical design of a custom hydraulic platform trailer designed to handle and transport 180 TN spent nuclear fuel casks. Performed design calculations, optimized design, and worked with Lift-Systems engineering to develop final system details.

Alabama Steel Terminal – Mobile, AL (2013-2015) – Mr Glover provided design, equipment procurement and construction management for the 180,000 sq.ft. steel coil warehouse located at Pier D at the Alabama State Docks in Mobile, Alabama. The facility includes (4) new 50 ton x 120' span bridge cranes equipped with Bushman coil grabs. The facility was designed to receive coils from rail, truck and vessel. Railcar and trucks are loading inside the warehouses to provide 24 hour a day service for customers. The facility utilizes a Gottwald mobile harbor crane at Pier D-2 to load and unload barges and vessels for import and export.

Oceaneering Umbilical Carousel- Panama City, FL (2013-2014) - Complete Mechanical design from concept to completion for the Oceaneering Umbilical Carousel located at the Port of Panama City in Panama City Florida. The carousel has an operating speed of 6.5 meters per minute, Maximum Wt. capacity of 7200 Metric Tons and maximum umbilical diameter of 20". The carousel consists of 3 major components: carousel deck, layboom and tensioner. The function of the carousel will be to store umbilical produced at the Oceaneering Umbilical production facility at the port.

LAP's Grocery and Grill – Mobile Causeway – Mobile, AL – (2011-2012) - Complete Mechanical design from concept to completion for the multi-purpose LAP's Grocery and Grill on the Mobile Causeway. The design included all site utilities, building plumbing, HVAC for entire project. The project includes a Bait and Tackle shop, Grocery store, Sundries, 90 seat full restaurant/commercial kitchen, a deli sandwich shop and fresh seafood market. The facility also has a live alligator pit to house 3 alligator which posed design challenges for the overall plumbing design. Cost - \$4,500,000.

Alabama State Port Authority Mobile, AL (2010-2012) - Rail Design - Complete rail layout and design of two new switches accessing the Virginia Street Lead and approximately 1,800 linear feet of new track from the Virginia Street crossing parallel to the existing lead to the south. The project included the engineering and construction for the restoration, realignment and releveling of approximately 2,200 linear feet of the existing Virginia Street Lead. The new track design allows McDuffie to service 3 units simultaneously.

Mobile County Health Department- Newburn Clinic 1st floor renovation (2009-2010) - Complete Mechanical design from concept to completion for the renovation of the 1st floor of the Newburn building for the Mobile County Health Dept. The design included all new plumbing for exam rooms and lab areas, modifications to duct work to meet new space requirements, new VAV system for the WIC area and waiting areas. Cost - \$,750,000.

Mobile County Health Department- Keeler Building 1st floor renovation – Mobile, AL (2009-2010) - Complete Mechanical design from concept to completion for the renovation of the 1st floor of the historic Keeler building for the Mobile County Health Dept. The design included all new plumbing for exam rooms and lab areas, replacement of existing convection coils with new fan power units, new VAV system for the immunization and waiting areas. Cost - \$1,000,000.

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ThyssenKrupp Steel and Stainless Mill, Calvert, AL (2008-2009) - Rail Design – Complete rail layout and design for over 70,000 linear feet of new rail at the new ThyssenKrupp Steel and Stainless Mill in Calvert, Alabama. The design scope included all MEP design for the locomotive maintenance and repairs shop, rail operator's office facility, air compressor stations, area lighting, and radio communication tower. The project design will encompass all aspects for the rail operations system from locomotive maintenance to in-motion scales.

Arkema Inc., Axis AL (2008-2009) - Rail Design - Complete rail layout and design for 4 design options for rail expansion at the facility. The final design was based on 2 of the original options presented. Option 1 was 1890 linear feet of new track which provides storage for 10 railcars. Option 2 was 1535 linear feet of new track which provides storage for 20 rail cars. The project included site drainage and culvert design.

GE Wind Energy, Pensacola, FL (2008-2009) - Rail Design - Complete rail layout for new switches and track for approximately 2,000 linear feet of track. The design included heavy duty asphalt for tractor trailer traffic and taylor forklift traffic. The design also included electrical site lighting, storm drainage system, retention ponds and landscaping.

SSAB Axis, AL (2007-2008) - Rail Design - Complete rail layout and design for 1,400 linear feet of new rail at 4 different locations around the facility. The project included the design of a switch in a curve, site drainage and culverts. CMG utilized existing rail and switches which provide substantial cost savings to SSAB.

BMHP Barge Loadout- Bulk Material Handling Plant Terminals – ASPA – Mobile, AL (2006-2007) - Complete Mechanical engineering design for the replacement and relocation of the existing barge loading facility at the Bulk Material Handling Plant. The project also utilized existing equipment which was abandoned during the dismantling of the Corus Steel Mill at McDuffie Terminal. Cost - \$5,000,000.

McDuffie Dock 1 Expansion – McDuffie Terminals – ASPA, Mobile, AL (2005-2007) - Complete Civil and Structural engineering design from concept to completion for the McDuffie Dock 1 Expansion. The project included the recycling of over 100-tons of structural steel from the dismantled Corus Steel Mill project. The Dock 1 expansion include a unit train loader, a barge loader, refurbishing and relocating a Dravo 6000 tph Stacker/Reclaimer from Portland, OR to McDuffie Terminal. Cost - \$30,000,000.