

D. Jarrett Tarrant, P.E.

Selected Major Project Details:

<u>PROJECT</u>	<u>CLIENT</u>	<u>DESCRIPTION</u>	<u>RESPONSIBILITIES</u>
PLATFORM RIGS (TLP & SPAR PLATFORMS)			
All Drilling Modules For Minimum Lift Weight Platform Rig (Installed with Platform Cranes)	H&P Rig 206 - Horn Mountain SPAR Project	Structural Design, Drafting & Analysis Of Drilling Module ,Pipe Rack & Engine Modules	Project Manager, lead Structural Engineer. Prepared complete design, analysis & Fabrication drawing package for all structures in the complete Rig.
All Drilling Modules For Minimum Lift Weight Platform Rig (Installed with Platform Cranes)	H&P Rig 205	Structural Design, Drafting & Analysis Of Drilling Module ,Pipe Rack, Engine & Quarters Modules	Project Manager, lead Structural Engineer. Prepared complete design, analysis & Fabrication drawing package for all structures in the complete Rig. Rig was designed with the versatility to oper. on 6 different platforms including a TLP & a SPAR.
Drilling Module For URSA TLP	H&P	Design, Drafting & Analysis Of Drilling Module	Project Engineer, lead Structural Engineer. Prepared complete design, analysis & Fabrication drawing package for the Substructure & Skidbase. Scope includes structural & piping systems.
Drilling Module For MARS & RAM\ POWELL TLPs	H&P Stress Engr	Third Party Review / Analysis Of All Rig Modules	Structural Engineer. Reviewed all aspects of structural engineering to assure accuracy. Review included StruCAD models, hand calcs, design basis, etc.
Modular Rig Concept for Gulf of Mexico Tension Leg Platform	EXXON	Conceptual substructure/skid-base design to provide rig related input to the TLP prel. design basis and to define the drilling considerations unique to the TLP application. Also defined complete rig in terms of equipment list, deck space required, costs and weights.	Project engineer. Prepared design basis; developed prel. equipment list; prepared AUTOCAD layouts of substr/skidbase showing drilling riser tensioning system, umbilical reels, BOP and tubular handling systems, interfaces with TLP and operation sequences; prepared estms. of deck space requirements, costs and weights.
Integrated Work-over/Redrill Rig for Gulf of Mexico Tension Leg Platform	Parker Drilling	Assisted Drilling Contractor in preparation of rig bid package. Scope included preparation of cost estms. and complete project plan deliverables.	Prep. project plan on PC based Proj. Mgmt system Incl. task list of 500 items for five phases of project (Engr, Fab, Rig Up, Load Out & Trans, and installation). Deliverables incl. task lists, manhours, material & labor costs, Pert Chart showing task dependencies & Critical Path, Gantt Chart showing schedule & manpower curves.

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TLP/FPS Rig Facilities Conceptual Design Study	EXXON Ram/ Powell Project	Developed rig facilities associated with each of four field development platform alternatives for the purpose of defining capital costs, weights, global loads imposed on platform and deck space required.	Performed complete study. Scope included preparation of prel layouts, equipment lists, and structural/systems concepts for 4 rig types. Estimates of consummables capacities were also made. Discussions were prepared to evaluate the rig alternatives with regard to Safety, Efficiency and Reliability in addition to costs/weights.

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All Drilling Modules For API Modular Platform Rig	H&P\Mobil - JADE Project	Design, Drafting & Analysis Of Drilling Module, Pump Pkg, Bulk Pkg, Compl. Pkg & Acc.	Project Engineer, lead Structural Engineer. Prepared complete design, analysis & Fabrication drawing package for all structures in the complete Rig.
Minimum Lift Weight Platform Rig (Installed with Platform Cranes) Offshore California	CHEVRON	Study/Analysis/Modification of existing rig for use on new platform. Included economic feasibility study. Preparation of fab. level package for modifications.	Project engineer, lead design engineer. Reviewed structural, mechanical, electrical, equip. arrgt. and operational considerations. Performed complete seismic analysis of composite drilling structures.
Modifications to Modular Rig for Gulf of Mexico	Dual Drilling	Design engineering for repackaging modules to eliminate the auxilliary equipment module. Purpose was to reduce platform deck space required to accommodate the rig.	Made field survey to assess the extent of modifications required; Developed new arrangements to accomodate relocated equipment; prepared design layouts and calculations for structure modifications; sketched piping ISOs to show piping modifications required.
Arctic Modular Rig for use on Concrete Bottom Founded Platform	Zapata	Design engineering for all modules and major outfitting items. Rig concept involved six fully enclosed and winterized modules plus the substructure, skid-base and enclosed pipe rack.	Structural engineer. Developed all framing concepts, performed design calcs for global and local loadings, prepared design sketches and guided drafting effort in preparing shipyard bid package.
Joint Industry Study "Platform Drilling Rig Optimization and its Influence On The Supporting Platform	AGIP, ARCO, CHEVRON, EXXON, Parker, Oilwell, /SSEI	An approx. 7000 manhour study to develop data bases and methodology to use in the optimization of platform rig design, including evaluation of the rig's influence on the platform design. The study provided data at several levels of detail for use in conceptual, preliminary, and detailed rig defination.	Project Manager. Developed study concept,scope and schedule; performed rig design exercises and research to put together the data base; developed all methodologies for using data; ;wrote major portions of deliverables presenting data and discussing various aspects of rig design such as equip. arrgt., systems design, safety, versatility,Etc.

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Minimum Weight / Deck Space Modular Rig for use offshore Chile	Interpetrol	Complete design and fabrication package including structures, mechanical, piping and electrical. Rig concept involved very restrictive limitations on weights and platform deck space occupied. Entire rig is supported by only four points at the platform deck. The concept called for a very versatile design whose modules could be assembled in several configurations which would allow operation in several modes (Self contained, tender assist or split between two platforms).	Project engineer, lead structural/mechanical engineer. Developed rig arrangements and packaging scheme; developed structural framing systems and designed all structures; directed computer structural analysis; sketched piping schematics and guided preparation of piping drawings; assisted client in specing out equipment, prepared computer program for use in field to monitor rig weights and C.G.s for all well positions ,rig configurations and consummable loadings.
Minimum Lift Weight Platform Rig (Installed with Platform Cranes) Offshore Calif.	LTV	Detail level design package for drilling structures and misc. outfitting items.	Lead design engineer. Developed prel. sizes & static/dynamic/seismic analysis of compl. composite drilling structures (derrick, substructure and skidbase)
Minimum Lift Weight Platform Rig (Installed with Platform Crane) Offshore California	ARCO	Prel. Platform Rig design for a twin rig concept. Intent was to provide rig related input to the platform detail design basis. Scope involved rig definition ,development of rig bid documents and a detailed definition of platform structural and facility requirements as related to the rig.	Prepared design basis for basic rig requirements; developed equipment list,rig packaging scheme, and system schematics; prep. AUTOCAD layouts of arrgts. & structural packaging scheme; prepared cost, weight and deck space estms.; Defined rig demands on platform facilities including power, fresh and salt water, diesel fuel, ETC.; calc. local and global loads on platform deck and skidrail; defined global load conditions & local deck design loads; prepared rig bid specifications and contract documents.