

Service and Maintenance for Solids Control Equipment



About the Course

Proper installation, care, and repair are all vital components to maintaining a productive solids control system. This course is designed for the tradesperson with both mechanical and electrical responsibilities on solids control equipment. Students will have the opportunity to participate in a hands-on course related to all aspects of service for each piece of solids control equipment manufactured by Derrick. (Service overview of competitive equipment by request)

Main Areas of Focus

- Equipment identification, parts, preventative maintenance and troubleshooting.
- Disassembly & reassembly of the following solids control equipment: Shale shakers, Degasser, Hydrocyclones, Pumps, Agitators, and parts of a Centrifuge.
- Related electrical components, troubleshooting and electrical maintenance.
- Operating manual referencing.

Who Should Attend

The course is designed for new hires, rig personnel, civil and underground operators, service technicians, and any other personnel who directly service solids control processing equipment.

Course Specifics

Instructor:

Matt Wiggins

Course Length:

5 days*

*Includes test tank and lab sessions

Time:

8:30 AM – 4:00 PM*

*Breakfast, snacks, and lunch are provided

Class Limit:

16 students

Required Attire:

- Jeans or Long Pants
- Shirt: No Vulgarity
- Closed-toed shoes

*Safety equipment & tools are provided

**Schedule subject to change
based on enrollment**

Service and Maintenance for Solids Control Equipment - Course Outline

| | Course Name | Learning Targets | Solids Control Key Outcomes | Engagement |
|-----------|---|--|--|---|
| Monday | Derrick Equipment Company Overview | <ul style="list-style-type: none"> ✓ History ✓ Locations ✓ Services | <ul style="list-style-type: none"> • Derrick key contacts & information | |
| | Electrical Awareness This section does not qualify a person to work on electrical components. | <ul style="list-style-type: none"> ✓ Basics of voltage, amperage, ohms, and horsepower ✓ Wire stripping, identification, multimeter use, and troubleshooting | <ul style="list-style-type: none"> • Identifying Derrick starters, motors, and wiring | <ul style="list-style-type: none"> • Starter box labeling and components • Motor cord function • Troubleshooting basics |
| | Operating Manual Overview | <ul style="list-style-type: none"> ✓ How to access manuals ✓ How to locate parts ✓ Wiring schematics | <ul style="list-style-type: none"> • Proper equipment installation methods • Locating and ordering parts | <ul style="list-style-type: none"> • Classroom overview of operating manual locations, access, and utilization. |
| | 500 Series Shale Shaker | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Service & Preventative maintenance | <ul style="list-style-type: none"> • Shaker disassembly • Parts identification and troubleshooting • Shaker reassembly • Hydraulic overview if applicable |
| Tuesday | Primer & Flo-Divider | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications for primer | <ul style="list-style-type: none"> • Service & maintenance on primer • Flo-divider recommendations & troubleshooting | <ul style="list-style-type: none"> • Primer walk-around and parts identification • Flo-divider installation overview |
| | Hyperpool Shale Shaker | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Service & Preventative maintenance | <ul style="list-style-type: none"> • Shaker disassembly • Parts identification and troubleshooting • Shaker reassembly |
| | Screen Technology | <ul style="list-style-type: none"> ✓ Brief history ✓ API RP 13 C ✓ Screen comparisons ✓ Screen performance | <ul style="list-style-type: none"> • Screen sizing • Cut points • Issues • Care | <ul style="list-style-type: none"> • Screen change on Derrick & competitive shakers • Screen microscope • Screen specifications • Screen animation |
| Wednesday | 600 Series Shale Shakers | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Service & Preventative maintenance | <ul style="list-style-type: none"> • Shaker disassembly • Parts identification and troubleshooting • Shaker reassembly • Starter box identification • Hydraulic overview |
| | Degasser | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Proper connection & operation • Service & Preventative maintenance | <ul style="list-style-type: none"> • Safety overview • Degasser disassembly • Parts identification and troubleshooting • Degasser reassembly |
| Thursday | Hydrocyclones | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications | <ul style="list-style-type: none"> • Proper connection & operation • Service & Preventative maintenance | <ul style="list-style-type: none"> • Cone & manifold disassembly • Parts identification and troubleshooting • Cone & manifold reassembly |
| | Pumps | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Proper connection & operation • Service & Preventative maintenance | <ul style="list-style-type: none"> • Pump disassembly • Parts identification and troubleshooting • Pump reassembly |
| | Mud Agitators | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Proper installation • Service & Preventative maintenance | <ul style="list-style-type: none"> • Agitator disassembly • Parts identification • Agitator reassembly |
| Friday | Centrifuge | <ul style="list-style-type: none"> ✓ Design and overview ✓ Technical specifications ✓ Mechanical specifications | <ul style="list-style-type: none"> • Proper installation • Service & Preventative maintenance | <ul style="list-style-type: none"> • Parts identification • Fundamental mechanical troubleshooting • Troubleshooting basic faults and alarms |
| | Solids Control Service Review | <ul style="list-style-type: none"> ✓ Quick quiz ✓ References ✓ Zip drive ✓ Course evaluation | <ul style="list-style-type: none"> • Assessment for learning | <ul style="list-style-type: none"> • Recap & discussion |