

# Inspection Services



*Together For  
a Safer Work  
Environment*

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Silver Teknik for Services





Silver Teknik for Services

# ABOUT US

## Our Company

**Silver Teknik for Services** provides specialized inspection services to a wide range of industries especially in the oil and Gas industry.

**STS** offers a reliable and valued pedestal of Inspection services.

We believe that the Technology and service quality forge our identity in the market place. From this point, we build our reputation by upgrade our services according to the newest technology and updated international standards.

### Our Mission

We are committed to providing the most our services to all the clients we work with, and to represent a shield between our clients' assets and any unexpected failures.

### Our Vision

We aim to be the world's market leader in inspection services and all other services & solutions we will provide in the future, to be always known for quality, reliability and integrity.

### Our Team

IN **Silver Teknik for Services** we believe in team work, we started with the experts in each inspection services to have the guarantee of best services for our Precious clients. The **STS** team is looking to develop innovative capability, both in our services and also through targeted collaborations. We aim to significantly improve the probability of detection and accuracy of services results; By using the latest advanced technology Our customer's asset integrity related problems are ours too. The professional, qualified and knowledgeable **STS** team offers consultation to provide solutions for our customer's requirement needs.

**STS** team will leave our customers with a lively and pleasant experience. Both parties are winners !



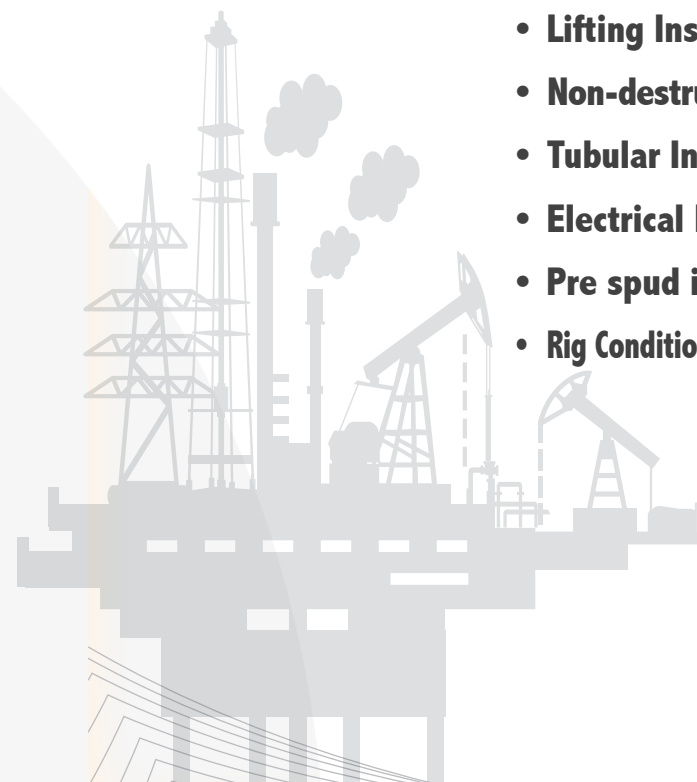
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## Our Services

- Lifting Inspection Services
- Non-destructive Testing (NDT)
- Tubular Inspection Services
- Electrical Inspection
- Pre spud inspection
- Rig Condition & Acceptance Surveys
- Calibration & Testing Services
- Maintenance
- Installation of Substation Civil and Erection Work
- Steel Fabrication Scope
- Training Services





# LIFTING INSPECTION SERVICES

**Silver Teknik for Services** provides Lifting Services including lifting inspection .

At **STS**, lifting inspections are performed and documented according to international standards of lifting. Our inspections have the necessary external and internal approvals to perform the inspections and the control according to valid requirements for the specific equipment type or category.

The periodic certifications and inspections performed by **STS** are based on relevant equipment standards and the manufacturer's instructions for use, Periodic inspection on Lifting gear, lifting appliances and lifting equipment, includes but is not limited to drilling equipment & tools, pedestal and overhead cranes, fixed lifting equipment, and loose lifting equipment.



## Lifting Appliances

The mechanical device which capable of raising or lowering a load

- Winches
- Girder trolley
- Slewing jib cranes
- Gantry crane/overhead crane
- Truck mounted crane
- Mobile crane
- Jacks
- Pully Block
- chain hoist
- Lifting and pulling machine
- Sheave block



## Lifting Accessories

The devices which used to connect a load to a lifting appliance<sup>1</sup>. Mobile cranes

### Slinging Accessories

- Textile Slings
- Chain and chain slings.
- Wire rope and wire rope slings
- Eyebolts
- Hoist rings.
- Shackles
- Rigging Screws and Turnbuckles

### Non-Fixed Load Attachments

- Plate clamps.
- Beam clamps
- Lifting beams / Spreader beam
- Lifting magnets
- Vacuum lifting devices
- 'C' hooks
- Crane Forks
- Lifting inserts



## Lifted Equipment

- Containers
- Skids
- Skips
- Drum racks
- Baskets
- Pipe racks
- Big bags



## Lifting Inspection team

**STS** Lifting team consists of highly qualified lifting inspectors Lifting team hes both qualified from NSL & LEEA to cover all lifting items.

Our engineers are qualified to perform any NDT work associated .

## Safe lifting Operations

**STS** To minimize human risk and unnecessary ensures that regulatory standards and requirements are met, to ensure safe lifting operations and minimize unnecessary delays or downtime.

We gain extensive experience through our lifting professional team, this team highly certified beside **STS** understands the value of the periodic training.

The periodic certifications and inspections performed by **STS** is based on relevant equipment standards and the manufacturer's instructions for use.

## Personal Qualifications

We have a Team of Highly Qualified Skills and Experiences.

Lifting Engineers who are all qualified with the following Qualifications.

LEEA (Lifting Equipment Engineers Association)

Lifting accessories course (LAC)

Manual Lifting Machines (MLM)

Power Lifting Machines (PLM)

Bridge and Gantry Cranes (PGC)

## NSL (North Sea Lifting)

LE1 LEI (Lifting Equipment Inspector) Module 1 General Lifting Equipment

LE2 LEI (Lifting Equipment Inspector) Module 2 Winches & Powered Hoists

LE3 LEI (Lifting Equipment Inspector) Module 3 Pedestal & Mobile Cranes

LE4 LEI (Lifting Equipment Inspector) Module 4 Overhead Travelling Cranes,Runway Beams & Swing Jibs

LE5 LEI (Lifting Equipment Inspector) Module 5 forklift trucks & stackers

LE6 LEI (Lifting Equipment Inspector) Module 6 Containers, Baskets & Other Cargo Carrying Units

LE7 LEI (Lifting Equipment Inspection) Rigging loft Management module 7





# NON-DESTRUCTIVE TESTING (NDT)

NDT is fundamental in ensuring the safety of assets for personnel, environment and investors.

Failure of a component, structure or weld can cause significant hazard to the environment and often leads to significant costs.

Ensure safe, continuous and cost effective performance of your asset, basing your decisions on reliable NDT-data on the assets condition.

We deliver NDT services to all industries during fabrication, in-service as well as during shut downs and maintenance



## Conventional NDT

- Visual Inspection-VT
- Dye/ Liquid penetrant inspection-PT
- Magnetic particle inspection-MT
- Radiographic inspection-RT
- Manual ultrasonic inspection
- Ultrasonic flaw detector
- Ultrasonic thickness measurement
- Painting & Coating inspection



## Ultrasonic flaw detector

One of the most common techniques to identify defects is ultrasonic inspection where sound waves, propagated through the material, are used to identify such anomalies.

The high frequency sound behaves predictably when interacting with surfaces and internal defects.

Flaw detection can be applied in almost any industry from composites and metals, to petrochemical oil and gas pipelines and storage tanks, to power generation. The most common anomalies detected include cracks, voids and porosity in metals, ceramics and plastics in addition to delamination and disbands in composites.

Advantages of ultrasonic testing include:

- Access is only required from one side for pulse-echo mode
- The depth of penetration is superior to other methods
- Highly accurate flaw sizing and shape
- Minimum part preparation is required
- Results are in real-time

## Advanced NDT

STS has an extensive range of Advanced Non-Destructive Testing equipment that offers our clients an unmatched capability of applications ranging from weld inspections to the detection of hidden cracks, voids, porosity and other internal irregularities in metals and composites.

Our specialized applications will help you to enhance inspection quality, simplify processes, speed up your inspection setups and realize easier interpretation.

With our state-of-the-art inspection technologies & application methods, you will save overall maintenance costs, improve production quality and ensure reliable operating processes.



## Advanced NDT Techniques

1. Phased Array Ultrasonic Testing (PAUT)
2. Time of Flight Diffraction Testing (ToFD)
3. Corrosion mapping using Phased Array UT (C Scan, B Scan)
4. Eddy Current Testing (ECT)
5. Internal Rotating Inspection System (IRIS)
6. Near Field Testing (NFT)
7. Tank floor bottom plate scanning by using Magnetic Flux Leakage technique (MFL)
8. Long Range Ultrasonic Testing (LRUT)
9. Corrosion Under Insulation (CUI)
10. ECT weld surface inspection
11. Ultrasonic thickness measurement at High temperature

## Other Services

- Vacuum Box Testing
- Hardness Testing
- Post Weld Heat Treatment

Non-destructive testing (NDT) covers a broad group of techniques used to evaluate the properties of a material, part, product, weld, or system without materially affecting the integrity of the unit being inspected or investigated under the test procedure. The non-destructive testing methods we offer are designed to comply with a variety of industry standards, unique customer requirements, government contracts.





# TUBULAR INSPECTION SERVICES

**STS** intend to serve the oil companies by providing timely, high quality, cost effective Tubular Inspection Services. Tubular Inspection includes inspection of new and used oil tubular goods covering: Drill Pipes, Heavy Weight Drill Pipes, Drill Collars, Casing, Tubing and Bottom Hole Assembly.

## STS Cover All Tubular Inspection

1. Pipe management systems.
2. NDT services (ET, MT, PT, RT, UT,VT).
  - Visual Inspection (VT) Level II
  - Magnetic Particle Testing (MT) Level II
  - Dye penetrant Testing (PT) Level II
  - Ultrasonic Testing (UT) Level II
  - Eddy Current Testing (ET) Level II
  - Radiographic Testing (RT) Level II
3. Drill stem inspection (API, DS-1, NS-2, STS SOP).
4. OCTG examinations (API 5A5, 5CT, EMI)
5. Tubular renovation (cleaning & protection).

At **STS** – All engineers are trained to the highest standard through both internal and external training and undergo regular competency assessments to ensure they are up to date with all the relevant procedures and standards.



## Electrical Inspection

Electrical inspection to ensure that the residual current device is working correctly. The process usually involves testing the accuracy and functionality of inspection safety switch devices which are designed to quickly stop power during electrical faults, which in turn reduces risks of electrocution and electrical fires.

The isolation procedure is verifying that all sources of electrical energy have been removed from the equipment or circuit. This may involve physically testing the circuit to ensure no electrical power is present.

### Earthing

It is recommended that the overall combined resistance to earth of the buried earth electrode system is measured every year, in line with current best industry practice. all systems are visually inspected and individual electrodes are measured annually.

- RCD Test
- Isolation / Insolation test
- Earth test





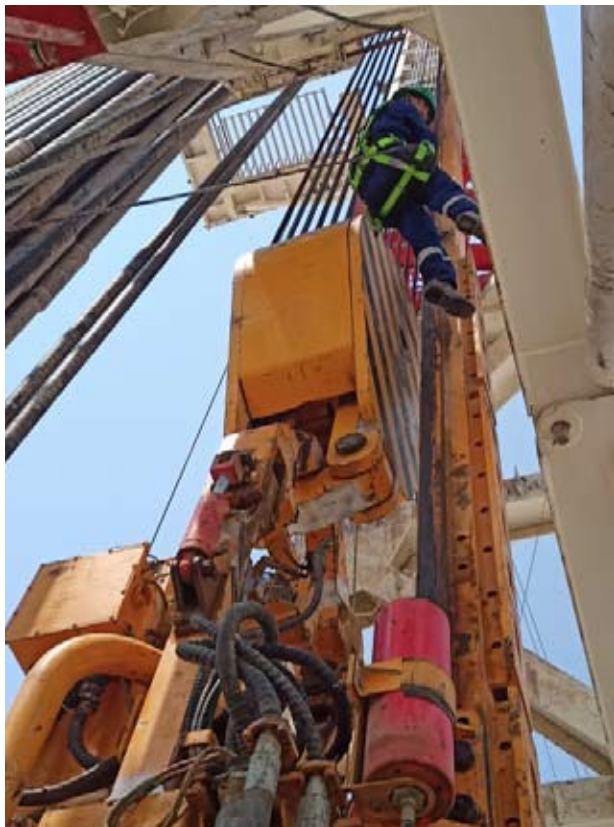
# PRE SPUD INSPECTION

Inspections to identify and eliminate all the potentially life-threatening hazards that can be caused by dropped objects. STS Drops are conducted by experienced professional DROPS Assessors with the skill to assist and eliminate all the potentially life-threatening hazards that can be caused by dropped objects. includes a detailed mast and associated equipment inspection along with an inspection of the elevated section of the drill floor substructure and other areas at height on the rig to identify potential hazards.



## Includes a DROPS Management System verification

a visual derrick inspection and an inspection covering all the equipment installed at height around the rig that is not an integral part of the structure on which it is mounted. Identify potential gaps from industry and client or operator' requirements, hazards and review the drilling contractors' Dropped Objects management system and its effective implementation. A report is provided containing recommendations of any potential of dropped objects to reduce such hazards . Photographs and appendices are included to contribute to a better understanding of the report. The on-site inspections are carried out using the relevant STS Inspection Programme for Drilling Structures and Travelling Equipment. Includes an evaluation to highlight any gaps from client requirements, contractor's understanding, and application of their program for reducing the risks of dropped objects.



## Includes

- Derricks & Masts.
- Travel / Equipment PH.
- Commas Mast.
- Substructure.
- Jack House and Legs.
- Rig Equipment.
- Moon Pool / Texas Deck.



## Throughout the processor inspectors

Review and ensure conformity to relevant codes, manufacturers Recommendations and legislation. Our final reports provides a detailedbreakdown of a rig's condition, which includes highlighting high-risk Areas of concern where immediate maintenance is required.



# RIG CONDITION & ACCEPTANCE SURVEYS

Along with our technical surveys and inspections, we conduct a review of application and adherence to the relevant codes of practice, regulations, manufacturers' recommendations and your own specifications and requirements.

STS also has the expert engineers – gained through many years of hands-on experience – to carry out full internal examinations of all capital equipment to assess critical components for excessive wear, damage, deformity and other defects. Where required, critical measurements will be recorded and compared to manufacturers' tolerances.



## Our capabilities include

- Drilling Equipment
- Derrick Inspections and Dropped Object Surveys
- Mud System and Solids Control Equipment
- Well Control Equipment and Systems
- Power Plant
- Power Generation and Distribution
- Control Systems and Instrumentation
- Cranes and Lifting Equipment
- Dynamic Positioning and Control (DP)
- Safety and Survival Equipment
- Emergency Systems and Procedures
- Pollution Control and Environmental Management
- Rig-based Documentation Packages
- Preventative Maintenance Systems (PMS)

Our Engineering staff all more than 10 years' experience in the oil and gas industry, they also be familiar and competent with the skill sets required to maintain and operate all drilling equipment associated with the respective equipment and in addition , high - specification Jack - ups tenders and Land Rigs and a full comprehension of the well control equipment associated with these installations.



## Rig Inspection Services

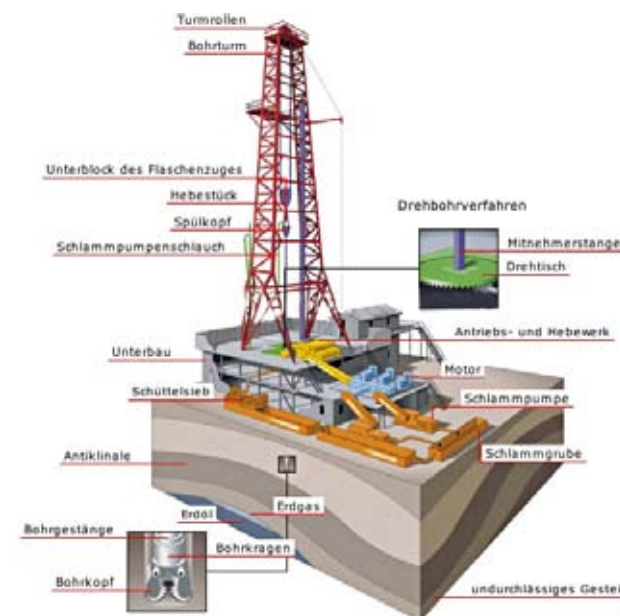
STS Provide Rig Inspection for each part of the Rig to cover the full rig inspection Services.

- |                                 |                                 |                    |
|---------------------------------|---------------------------------|--------------------|
| 1- Crown Block                  | 12- Electric Cable Tray         | 23- Pipe Ramp      |
| 2- Cat line Boom and Hoist Line | 13- Engine Generator Sets       | 24- Pipe Racks     |
| 3- Drilling Line                | 14- Fuel Tanks                  | 25- Accumulator    |
| 4- Monkey board                 | 15- Electric Control House      | 26- Annulus        |
| 5- Traveling Block              | 16- Mud Pump                    | 27- Brake Bands    |
| 6- Top Drive                    | 17- Bulk Mud Components Storage | 28- Casing Head    |
| 7- Mast                         | 18- Mud Pits                    | 29- Cathead        |
| 8- Drill Pipe                   | 19- Reserve Pits                | 30- Catwalk        |
| 9- Doghouse                     | 20- Mud Gas Separator           | 31- Cellar         |
| 10- Blowout Preventer           | 21- Shale Shaker                | 32- Conductor Pipe |
| 11- Water Tank                  | 22- Choke Manifold              |                    |



## RIG ACCEPTANCE SURVEY

Our detailed independent Rig Acceptance Surveys assess a rig's condition and capability to meet your contract specification and operate within the envelope of your performance criteria. Applying the same parameters as used in our Rig Condition Surveys, then augmenting them with specific operational testing and integrity verification, we ensure the rig, its equipment (or certain defined equipment) and systems comply with all current and applicable International industry standards.





# CALIBRATION & TESTING SERVICES

## Pressure Equipment

- Hydraulic pressure Gauge 0 to 2000 Bar
- Pneumatic Pressure Gauge 0 to 1000 Bar
- Vacuum Gauge 0 to -0.8 Bar
- Hydraulic Pressure Safety / Relieve Valve 0 to 2000 Bar
- Pneumatic Pressure Safety / Relieve Valve 0 to 1000 Bar
- Pilot valve
- Direct Spring Valve
- Switch Pilot Valve
- Weight Indicator Gauge
- Tong Torque Gauge System
- Transducer
- Chart Recorder with Static / Differential Pressure
- Gate Valve
- Low Torque valve

## Hydraulic Pressure test

- Hydraulic Pressure tests up to 2000 Bar
- Pneumatic Pressure tests up to 10 Bar

## Maintenance

- Hydraulic Pressure Gauge
- Pneumatic Pressure Gauge
- Chart Recorder
- All types of Safety Valve
- Low torque Valve
- Gate Valve
- Load cell System
- System Test Pump
- Weight Indicator System
- Torque Gauge

## Driller

## Monitoring Systems

- MD
- Tascom Rig Sense & Mi
- Swaco Smart System



# MAINTENANCE

## ELECTRICAL / ELECTRONIC MAINTENANCE

Electrical maintenance services test, repair, and upgrade many types of electrical assets. Examples include automatic transfer switches, backup power systems, batteries and battery systems, electrical cables, capacitors, capital equipment such as rotating machinery, circuit breakers, circuit interrupters, circuit re-closers, circuit switchers, cogeneration equipment, and cogeneration systems. Companies that test and measure corona damage, dielectric absorption, and dielectric fluid can also maintain digital relays, electrical contacts, electrical distributionsystems,electricalpowerequipment,electricalpowergenerators,electromechanicalrelays,andemergencyelectricalsystems. Electrical maintenance services may test or replace fuses, generators, ground grids, ground fault systems, high voltage substations, electrical insulation, insulating oil, load break switches, medium voltage cables, motors, motor drives, oil breakers, panel boards, power lines, power meters, and power supplies. In addition to power equipment, power factor machinery, and power generation systems, electrical maintenance services may test or replace protective relays, SF6 breakers, switchgear, uninterruptible power systems (UPS), vacuum circuit breakers, variable frequency drives (VFD), voltage regulators, and watt meters.

## Hydraulic system maintenance

When it comes to operating heavy machinery and equipment, a hydraulic system likely does heavy lifting. These powerful pieces of equipment can move impressive weights and are behind some of the most vital tasks of many businesses. With all the work they do, proper hydraulic system care is critical. Without it, you risk damaging the components, losing efficiency, and injuring workers by creating safety hazards.

## We can provide these resolving issues:

Hydraulic system application: Heavy lifting machinery, buffing machine, 4-function EMI, Steering system, Hydraulic brakes, Machine Hydraulic press, and so on.

### • Leakage Issues.

One of the most common problems in hydraulic systems is leakage. It can occur at various points in the system, including hoses, fittings, seals, and connections. Signs of leakage include visible oil spills, reduced fluid levels, and decreased performance. To identify the source of the leak, it is necessary to clean the affected area and inspect for signs of wetness or oil residue. Our hydraulic repair services will tighten loose connections, replace damaged hoses or seals, and ensure secure fittings.

### • Loss of Power.

If your machine is experiencing a noticeable loss of power, it could indicate a problem with the hydraulic system. This may be due to issues like air in the system, pump inefficiency, or a malfunctioning relief valve. The experts at STS will check for air bubbles in the hydraulic fluid, inspect the pump for wear or damage, and verify that the relief valve is functioning correctly. Once these issues are assessed, we will thoroughly explain the diagnosis and the machine service repairs required.

### • Unusual Noises.

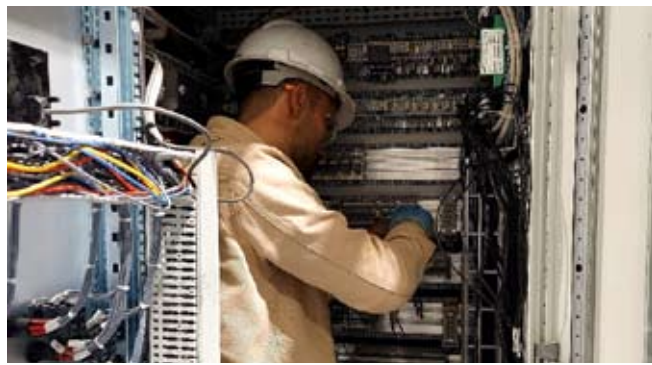
Sometimes, things do go bump in the night- and in the daytime, too! Unusual noises, such as grinding, banging, or whining, are clear indicators of a problem within the hydraulic system. These noises may be caused by cavitation, aeration, or worn-out components. Cavitation sounds when air bubbles form in the fluid, leading to a knocking sound. Aeration is the introduction of air into the system, resulting in a whining noise. Worn-out components can lead to various types of unusual sounds. To address these issues, consult STS for a comprehensive assessment of hydraulic repair services.





# INSTALLATION OF SUBSTATION CIVIL AND ERECTION WORK

1. Excavation works
2. Pile driving works
3. Burial works
4. Foundation reinforcement works
5. Foundation mold work
6. Reinforcing and form work (retaining walls)
7. Reinforcing and molding works (columns)
8. Form work and roof reinforcement for the basement
9. Form work and reinforcement of columns for the first floor
10. Formwork and reinforcement work for the building's roof
11. Burying and pouring the basement floor
12. Brick building works
13. Ficus works
14. Painting works
15. Ground works for the building (screed-epoxy-cashi-granite)
16. Ceramic wall plastering works (porcelain - acidic porcelain)
17. Surfacing works



1. Earth System of station.
2. Installation of GIS equipment (Gas Isolated System).
3. Cable pulling LVAC ( Control,Fiber optic,transformer ,Scada,Aux,Capasterbank)
4. Wiring LV Cables.
5. Cable pulling (MV,HV) and termination.
6. Installing transformers and filtration transformer oil.
7. Installation the control panels.
8. Assembling and installing steel structure of station.
9. Testing and Commission of Station.



# STEEL FABRICATION SCOPE



- Storage tanks
- Pipeline fabrication
- Generator Housing
- Vessels fabrication
- Caravans fabrication
- Sandblasting & Paint

## STORAGE TANKS & VESSELS

Our experts at STS have worked for top companies in the area of fixed storage tanks and portable vessels, our combination of services and know-how allows our customers to stay ahead of the competition.

## PIPELINE FABRICATION

STS proved itself in fabricated piping systems with a great reputation in the pipeline installation market, we use proprietary welding techniques, computer applications for material control, production scheduling and fabrication management to meet our clients schedules in the most efficient way.

## CARAVANS FABRICATION

We fabricate and build caravans for all needs, we work with companies of all sizes. Our customer range from new startups, small regional manufacturers to internationally recognized corporations.

## GENERATOR HOUSE

STS customized and fabricate generators enclosures to comply with industry standards. Our experienced team can design and customize generator sets enclosures to meet unique requirements that meet oil and gas sector regulations



## SANDBLASTING

Paint and sandblasting work is where STS shine, we provide various types of blasting and painting services to the oil and gas industry, including UHP (ultra-high pressure), hydro blasting and more traditional grit and steel ball blasting

## WATERJET BLASTING

When it comes to recycling and protecting metal parts from corrosion, any coatings and rust first needs to be removed completely without leaving any residue behind.

STS high pressure water cleaners solutions offer an effective and environmentally friendly solution here using a pressure of up to 7500 psi





# TRAINING SERVICES

STS Petroleum Services Provide training services

[ NDT Courses – API Courses – Welding Inspection Courses ]



## NDT Courses

Inspection NDT Fundamentals

- Visual Inspection (VT) Level II
- Radiographic Testing (RT ) Level II
- Ultrasonic Testing (UT) Level II
- Magnetic Particle Testing (MT) Level II
- Dye Penetrant Testing (PT) Level II
- Eddy Current Testing (ET) Level II



Silver Teknik for Services

## Courses

- |                           |                        |
|---------------------------|------------------------|
| • Rigging & Slings        | • H2S                  |
| • Emergency Response Plan | • First aid            |
| • Defensive Driving       | • Working at Heights   |
| • Lifting Awareness       | • Confined Space Entry |
| • Risk Assessment         | • Crane Operator       |
| • Fire Fighting           | • Forklift Operator    |

## API Courses

- API 570 Authorized Piping Inspector preparation course
- API 510 Authorized Pressure Vessel Inspector preparation course
- API 653 Authorized Tank Inspector preparation course
- API 577 Advanced Knowledge in Welding inspection & Metallurgy
- API 571 Advanced Knowledge in Corrosion Damage mechanisms
- API 580 Risk Based Inspection
- API 579 Fitness for Service





Silver Teknik for Services

# ACCREDITATION CERTIFICATES

