



FAIRTEX



INSPECTION DIVISION



FAIRTEX INTEGRATED SERVICES LTD

www.fairtex.com.ng

ISO 9001:2008 CERTIFIED



INTRODUCTION

Fairtex in an effort to fulfill its vision and to further its professional inspection division in Nigeria in 2012 established a full range of inspection division as part of the company services offering to the oil & gas, petrochemical, refinery, and other sectors.

Fairtex strive to become a global inspection company by partnering with OEMs with modern equipment & technology for offering Advanced & Conventional NDT, API Inspection, Lifting Equipment & Gears inspection, Rope Access Inspection and pipeline Inspection services.

We have highly qualified NDT inspectors and engineers for project delivery. We are certified to ISO 9001:2008 quality management standards.

Fairtex Inspection Division Covers:

- Advanced NDT
- Conventional NDT
- Tubular Inspection
- Lifting Equipment & Lifting Gear Inspection
- QA/QC Inspection services
- Asset Integrity Inspection Services
- Thickness Gauging
- Rope Access Inspection
- Calibration Service
- Wire Rope Integrity Management & Inspection
- Pipeline Inspection Service
- Mechanical Testing Service
- Load Testing & Inspection
- Padeye Inspection
- Corrosion Mapping
- Crane Service & Inspection
- Lifeboat & Liferaft Inspection
- Asset Management

ADVANCED NDT SERVICES

Fairtex inspection division has developed a range of advanced NDT solutions to help anticipate and manage challenges in the oil & gas by screening the high risk assets using the best inspection technology equipments through his partnership with OEMs.

We have been working diligently to make the vision a reality by investing in technology and trained support personnel and establishing common operating procedures in safety, quality assurance and human resource management.



Fairtex Advanced NDT Services Covers The Following;

- Guided Wave Long Range Ultrasonic Testing of plant piping and pipelines (GWLRUT)
- Corrosion Under Insulation (CUI) measurement without removal of insulation using Lixi Profiler System
- Magnetic Flux Leakage tank floor scanning (MFL)
- Ultrasonic C-scan remotely operated crawler
- Ultrasonic C-Scan corrosion mapping
- Fugitive Emission Leak Detection (Smart LDAR)
- Thermography
- Borescope/Videoscope Inspection
- Acoustic Emission (AE)
- Inspection of Boiler and Heat Exchanger tubes
- Ultrasonic Phased Array / TOFD examination
- Computed radiography
- Direct Digital Radiography



CONVENTIONAL NDT SERVICES

Fairtex provides non destructive testing services to the Oil & Gas, Marine, Petrochemical, Refinery and other industries in Nigeria.

Fairtex have highly skilled, experienced and motivated personnel qualified and certified in accordance with international certification schemes (e.g.PCN(EN 473/ISO 9712), ANSI CP-189 and SNT-TC 1A) in the conventional techniques that have underpinned the NDT industry.

Fairtex Conventional NDT Services Covers

- Ultrasonic Testing
- Radiography Testing
- Magnetic Particle Testing
- Liquid Particle Testing
- Visual Inspection
- Remote Visual Inspection
- Tubular Inspection
- Hardness Testing
- Leak Testing
- Ferrite Testing

TUBULAR INSPECTION SERVICES

Fairtex inspection division provides a variety of Drill Pipe/OCTG Inspection Services depending on customers'/Manufactures recommendation and requirements; we have well qualified in house technical manpower that are capable/qualified for performing inspections ranging from BASIC/API standards to critical well service standards.

We do visual/dimensional inspection of Drill pipes/Casing/Tubing/BHA tools/HWDPS/Rig parts and Handling equipment's in order to confirm acceptability.

We have full length EMI inspection pipe surface inspection units which are capable of detecting transverse and 3 dimensional flaws such as pits, seams and gouges.

Our certified Drill Pipe Inspection/Tubular Inspection Engineers shall conduct periodic inspection in regular interval of time based on past inspection/failure history and drilling condition.



LIFTING EQUIPMENT & LIFTING GEAR INSPECTION

Fairtex provides a statutory structural integrity inspections/assessment on Lifting and Hoisting equipment as part of client's risk assessment program/annual survey and to meet legal/safety requirements for periodic inspections.

Periodic inspection is intended to determine the need for repair or replacement of components to keep the lifting equipment/lifting gears and to ensure that the equipment is safe and fit for use with all applicable jurisdictions, standards and regulations. After thorough Inspections/Proof Load testing of lifting equipment with satisfactory result, documents of certifications/third party evaluation assessments can be issued in accordance with the local jurisdictions, standards or those of the destinations of the lifting device.



The spectrum of services

- Inspection and Certification for Lifting Equipment & Lifting Machines
- All types of Cranes like Crawler, Hydraulic Mobil, Overhead, Gantry and Tower Cranes
- Offshore Cranes
- Professional Proof Load Testing and Monitoring for Cranes
- Manufacturer Crane Inspection /Commissioning and Certification
- Forklift Trucks, Lorry mounted Cranes
- Periodic Inspections of Lifting Equipment and Lifting Accessories
- Condition monitoring of Lifting Equipment and Lifting Accessories
- Commissioning Inspections of Cranes
- Load testing of Derricks, Life Boat Davits systems, Offshore/ Land Rigs, Vessel and Barges etc.,
- Inspections of Lifting Tools/Gears
- Onsite / Offsite Inspection of Pad Eyes
- Inspections and Certification of Containers, Offshore Baskets, Cargo Baskets.
- Bollard Testing
- Wire rope inspection and certification by non-destructive testing(Magnetic Flux Leakage) method
- Calibration of test weights and certification
- Annual Examination / Condition assessment evaluation of structural elements (Track, Support structure), Ride components (Track, wheel spindles, chassis, axles etc.) in Roller Coaster, Honey Bee Swing, Mono rail etc. and it includes NDT/NDE evaluation, Electrical analysis, Functional test, Destructive testing etc.

QA/QC INSPECTION SERVICES

Fairtex inspection division provides third party services that represents interest of client throughout the project and our service ensures right & cost effective solutions for the project requirements.

We are providing the services by our experienced AWS/CSWIP/NACE /BGAS certified inspectors to carry out QA/QC inspection and Plant inspectors qualified with API 510/570/653 for API inspection as mentioned our scope below to our esteemed client with excellent customer satisfaction.

Fairtex QA/QC Inspection Competence Include;

- In service storage tank inspection and certification as per API 653
- In service pipe line inspection as per API 570
- Pressure vessel inspection and certification as per API 510
- Welding Inspection
- Coating/Painting inspection
- Welder Qualification Witnessing
- Hydro test witnessing, Pneumatic test witnessing
- Dimensional inspection, Structural alignment and bolt tightening inspection
- Pull test witness and reports endorsements
- Material receiving inspection and report submission
- Quality audit to subcontractor behalf of client
- Rotating equipment alignment inspection

ASSET INTEGRITY MANAGEMENT SERVICES

Fairtex inspection division provides full asset integrity management services to our clients by using expertised and experience in the 3 main API standards that are most applicable to the daily operation of our clients. Our Asset Integrity management services covers;

- Pressure Vessel Inspection
- Piping Inspection
- Above Ground Storage Tank Inspection
- Storage Tank Inspection
- Facility Inspection
- Equipment Inspection

We are perfectly poised to provide qualified and experienced inspectors to deliver a broad range of API inspection anywhere in Nigeria. With a primary focus on API 653 (Tank Inspection), API 570 (Piping Inspection) and API 510 (Pressure Vessel Inspection). We offer packages that provides a complete API inspection solution for bulk storage terminals, refineries and offshore platforms

THICKNESS GAUGING

Fairtex inspection division provides thickness gauging by using the latest multiple echo through coating ultrasonic equipment, having wide range Diameter/Frequency Probes helps us inspect Pits and different Material property ranges.

We have trained and specialized inspection teams with relevant offshore training and medical certification to serve the offshore sector, especially the Rigs, FPSO, FSO, MODU's, Platforms and well head units.

Fairtex Thickness Gauging Services Includes the Following;

- Hull and Leg inspections
- Pipeline Gauging including HP Lines
- Periodical Surveys for Offshore Units
- Steel Supervision During Refurbishment, Repairs and Conversions
- Periodical Corrosion Monitoring of Pipelines – Oil & Gas
- Structural Integrity Surveys of Platforms and Rigs
- Condition Assessment Surveys – Structural & coating
- Hull UTM survey for all types of ships, boats and barges
- Pipeline Inspection
- Anchor Chain Inspection



ROPE ACCESS

Rope access is swiftly becoming a preferred method of carrying out inspections, tests and maintenance in various industries across the globe. It allows safe and rapid access to remote locations for a wide range of inspection, testing and structural engineering functions. The versatility of rope access services permits flexible and comprehensive service on the inspection and structural maintenance programs. Since, rope systems are unobtrusive, it benefits clients who wish to retain the visual integrity of the structure during inspection or maintenance works.

Our Rope Access Services Covers

- Inspection & Non-Destructive Testing
- Ultra High Pressure Water Blasting
- Painting (airless spray & brush application)
- Maintenance & Installation Projects
- Load Testing Services
- Electrical Maintenance
- Derrick Assembly
- Rigging & Lifting
- Grit Blasting
- Visual Inspection
- Welding Inspection



CALIBRATION SERVICES

Fairtex have been providing cost-effective solutions to the calibration industry and have helped our customers to implement, maintain and improve their quality management systems. Quality and safety at work is of dominant importance and we are committed to provide services that constantly meet the customers' requirements in a safe, timely and cost-effective method.

Fairtex maintain high accuracy master equipment traceable to International Standards, qualified and experienced personnel, well defined work procedure to calibrate customer instruments for compliance with International standards or manufactures specification.

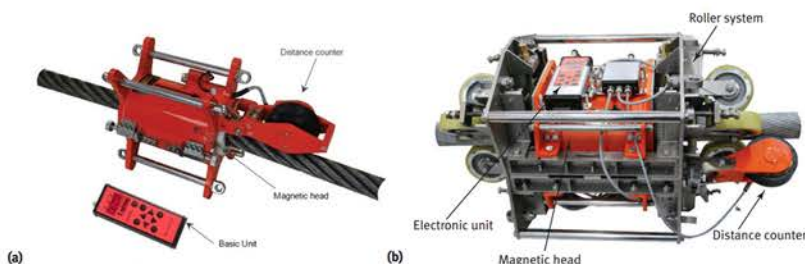
- Calibration & Testing of Pressure / Temperature / Humidity related equipments

- | | |
|-------------------------------------|---------------------------|
| • Pressure Gauges | • Pressure Regulators |
| • Vacuum Gauges | • Thermometers |
| • Pressure Relief Valves | • Temperature Calibrators |
| • Pressure Calibrators | • Temperature Recorders |
| • Pressure Chart Recorders | • Pressure Test |
| • Pressure Transmitters/Transducers | |

WIRE ROPE INTEGRITY MANAGEMENT & INSPECTION

Fairtex Wire Rope Inspection and Spooling System provides our clients with a service that allows them to confidently extend the life of their ropes and by in-situ condition based inspection. By using this technique for wire rope inspection, clients gain real information about the condition of their ropes which leads to the potential of their life span being extended and in return reduces replacement costs. Fairtex wire rope inspection services provides more confidence because:

- The technique allows us to 'see' inside the rope, to detect broken wires and corrosion wherever it occurs.
- The technique provides quantitative data as opposed to a subjective visual inspection.
- Wire ropes being tested do not have to be cleaned first, minimising time.
- We test the ropes and evaluate the results in accordance with standards accepted throughout the world.
- We are able to provide instantaneous results by connecting with a computer while testing is taking place.
- For breaks on the surface, the sensor head will find one broken wire in as many as 250 wires.
- For internal breaks, the detector will find fractures when they amount to 1% or more of the total number of wires.
- For corrosion at any location, the sensor will find 1% or more loss in cross sectional area.



Fairtex rope inspection services which are both wire and fiber ropes, covers inspection of crane rope, elevator ropes, access ropes, winches rope, mining ropes, chimney fire guy ropes, aerial cableway ropes, drilling ropes, stay cables and suspended cables bridges rope and new ropes either during production run or delivered to the customer. We carry out on-site inspection onshore and offshore. The software Rope Strength is used for residual rope life (strength) assessment.

PIPELINE INSPECTION SERVICES

Fairtex inspection division pipeline inspection and integrity management services include in-line inspection using MFL, TFI Calper or Geometry & UT technologies. Fairtex also provides integrity management support services to oil & gas industry

Fairtex pipeline inspection activities includes

- Supply of cleaning pigs
- Supply of traps (launchers & receivers)
- Pipeline coating services
- Pipeline cleaning operations
- Pipeline guaging & dewatering operations
- Geometry survey of Pipelines
- Inline metal loss and crack detection surveys of pipeline (involving MFL, TFI, EMAT and ultrasonic inspection techniques or other techniques)
- Pipeline Integrity management and assessment services
- Supply of utility pigs spares, guaging plates, pig transmitters/ receivers, pig traps etc.
- Supply, installation and operation of facilities supporting pigging operations of the principal including but not limited to cyclone filters, piping, storage tanks



MECHANICAL TESTING SERVICES

Fairtex provide a comprehensive range of mechanical and metallurgical testing services to identify mechanical properties of materials. We measure strength and ductility of the materials under various conditions such as temperature, tension, compression, impact, load etc. We have well equipped in-house machine shop with advanced testing equipments to conduct the tests as per ASTM, BS, BS EN, DIN, ISO or client/project specified standards.

We are well equipped to ascertain the mechanical properties with carefully designed laboratory methods, data analysis and experienced personal's interpretation.

Fairtex provides the following mechanical testing services;

- Tensile testing
- Bend test
- Impact test (Charpy)
- Hardness test
- OES / PMI Chemical composition analysis
- Failure analysis
- Field Metallography Techniques (Replica Metallography)

LOAD TESTING & INSPECTION

Fairtex uses the best available tools to deliver the best quality of services.

Our Water Bags are proof loaded and certified to stand adverse onshore/offshore environment. All our load measuring equipment is certified.

We are committed to respond to your needs quickly, with reliable equipment and trained personnel to minimize your downtime and the risk of accidents during inspections and load testing.

We use test weights and our own calibrated load cells to carry out our load test for mobile/overhead cranes and rigging equipment hoists, spreader bar, slings, and other lifting apparatuses as required by OSHA.



PAD EYE TESTING

Every Pad Eye and Lifting point can become a potential risk in a load movement operation: For this reason Fairtex has developed a tool called Padeye tester to apply load on Pad Eyes as part of the maintenance, inspection and certification programs for our clients.

Fairtex strongly recommends that certification procedures for lifting Pad Eyes be enforced. NDT inspection is also very important in order to evaluate whether the equipment is fit for use.

Fairtex Pad Eye Tester is a light and portable device for load testing pad eyes and eye bolts. This product can be mounted in any surface plate/beam. The height can be regulated with an adjustable threaded rod. Hydraulic high pressure hoses nozzle equipped with quick coupling can be detached from the load carrying body if required. Our padeye tester, tests from 5T and above padeyes and eye bolts.



CORROSION MAPPING

Corrosion mapping is an ultrasonic technique which maps and identifies variations in material thickness due to corrosion. Corrosion is the deterioration of a metallic material by chemical (or electrochemical) attack. This is normally caused by the environment (most often water), and sometimes by another material.

Fairtex has a dedicated, experienced staff to provide corrosion mapping services in a way that meets all code, standard and specification requirements for the examination of pipelines, piping systems, pressure vessels, reactors, and storage tanks.



CRANE SERVICE AND INSPECTION

In an effort to fulfill its vision and further its professional third party focus, Fairtex started its Inspection Division offering its clients crane inspection services on high quality, reliable and professional service they have been used to in Load Testing and other Inspections.

Crane Service & Inspection

- Supervision of Crane Installation and Setup on behalf of manufacturers.
- Monthly, Quarterly, Annual and 5-year Inspections Protocols Available
- All Preventive Maintenance (PM 's) of the Crane
- Pressure Test on all Crane Hydraulic Systems
- Optional: NDT of critical structural components (Ex: Load Blocks and Hooks, Pedestal Foundations, etc.)
- Optional: Load Test Equipment
 - Certified Water Bags and Load Cells with Technical Support
 - Rental of Certified Load Cells for Pull Test
 - Certification of Pad Eyes for Pull Test

Other Crane Services Offered:

- Training of Crane Operators and Maintenance Team and Supervisors
- Calibration of Crane Safe Work Load Indicator
- Comprehensive Training for Operators and Crane Maintenance Supervisors
- Technical Assistance to locate direct OEM Parts and replacement service

Our crane services apply to all brands of pedestal cranes and overhead/bridge cranes with extensive experience with PATRIOTS, SEATRAX cranes in particular.

LIFEBOAT & LIFERAFT INSPECTION



Fairtex offer Lifeboat and liferaft inspection services. IMO (international marine organization) setting up recommendation for the inspection of davits, lifeboats and liferafts. aiming at the protection of accident for the use of davits, lifeboats and liferaft.

Fairtex through its new inspection vision partners with OEMs to provide inspection of davits, lifeboats and liferaft through its specialized inspectors.

ASSET MANAGEMENT

Fairtex provides Asset Management Support to clients and operators for the following:

- **Water Bags and Underwater Lift Bags**

- Preventive Maintenance
- Yearly Certification
- Repairs & Evaluation
- Load Cells & Calibration

- **Lifting Gear & Pad Eyes**

- Inventory, Identification, NDT Inspection and Load Testing
- "Lift Loft" Concept: Complete Outsourced Solution of Certified and well maintained Lifting gear provision for vessels, rigs and bases.

- **Cranes**

- Commissioning, Maintenance Planning, Crane Inspections, Fine Tuning, Outsourcing of parts and Consulting.

- **Lifeboats & Davits**

- Training on Operation and Maintenance from over 30 manufacturers.
- Annual and 5-Year Inspections, Outsourcing of parts and Consulting.
- Load Testing of Davits, Winches, Lifeboats and Life raft Davits.
- On-load Release Test of Lifeboat Hook Release Systems is also available.

DÜRR NDT Exclusive Agent



HD-CR 35 NDT – CR-SCANNER

Portable high resolution CR scanner for all NDT radiography applications - weld testing, profile images and aerospace.

HOW DOES IT WORK?

Computed Radiography (CR) is the production of a digital image by using a Phosphor Imaging Plate (IP) in place of conventional film.



- IPs are reusable
- No dark room or chemicals required
- Exposure and process times reduced
- Easy work flow and image optimisation
- Simple to share digital information and archive with D-Tect software

DR 7.2 NDT



CMOS detector for ultra-high resolution imaging – meets aerospace standards!

HD-CR 43 NDT

- Brilliant images through excellent technology

Automatic Imaging Plate Scanner for your heavy workload applications

EXPERIENCE

Technology proven in more than 25,000 units

INTELLIGENT

Individually adjustable to your preferences

RESOLUTION

Stepless between 2.5 lp/mm and 20 lp/mm

NETWORK

Fast connected to the network or installed as single station

ROBUST

Long-lasting and sturdy cassettes



XR 24 NDT

Portable automatic X-ray Film Processor with daylight option – X-ray film processing of the highest level



NDT X-RAY CHEMICALS



Stunning results for industrial film processing

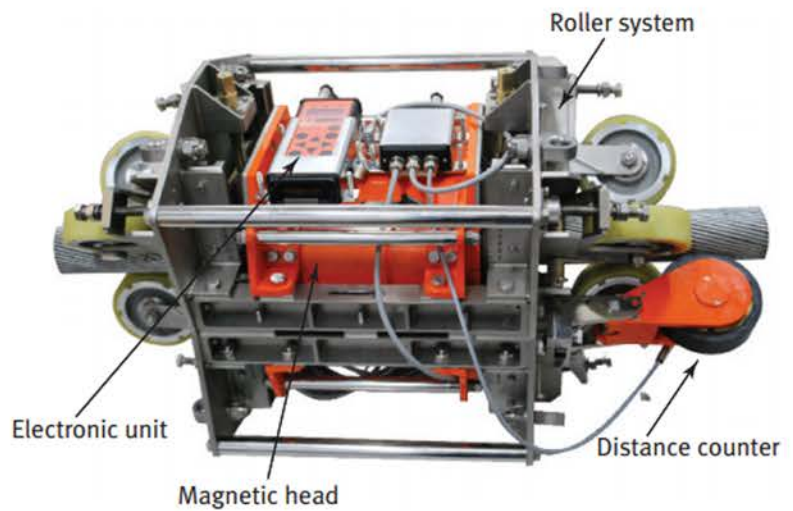
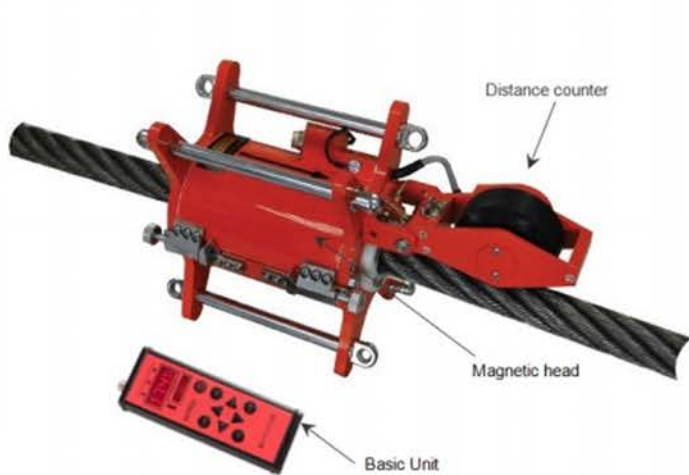
DIGITAL RADIOGRAPHY



Flat Panel Detectors (FPD's) for nondestructive testing provide fast and low dose x-ray imaging.



Agent



Our Inspection covers:

- Crane rope
- Elevator ropes
- Access ropes
- Winches rope
- Mining ropes
- Chimney fire guy ropes
- Aerial cableway ropes
- Drilling ropes
- Stay cables ropes
- Suspended cables bridges rope



MAGNETIC FLUX LEAKAGE TESTING



ELEVATOR ROPE INSPECTION



OFFSHORE CRANE ROPE INSPECTION



Bridge rope with a magnetic flux leakage testing instrument with roller system

OUR CLIENTS



TOTAL

ExxonMobil



DORMAN LONG
SINCE 1949



Saipem



INTENDING CLIENTS





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INTEGRATED SERVICES LTD

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OUR CERTIFICATIONS



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