Version 2025 | Applies to Diesel, Electric & Rough Terrain Models

## **Engine & Power System**

Inspection Item	Action Required	Status
Engine Oil Level	Check via dipstick, clean, reinsert, and verify level	
Coolant Level	Inspect reservoir; top up to recommended level	
Oil & Coolant Leaks	Inspect under chassis and around engine block	
Battery Terminals	Check for corrosion; clean & apply terminal grease	
Air Filter	Remove & inspect for dirt/damage; replace if necessary	
Fuel Filter	Check for clogging; replace if dirty	
Spark Plugs (if applicable)	Inspect for wear; replace if needed	
Ignition System	Check coils, wires, distributor for damage	
Belts & Hoses	Inspect for cracks, tension & wear	
Exhaust System	Check pipes, muffler for rust, holes, leaks	
Engine Start-Up	Listen for irregular noise, verify smooth RPM response	
Vibration & Noise	Check for abnormal vibrations or engine sounds	



## **Hydraulics System**

Inspection Item	Action Required	Status
Hydraulic Fluid Level	Verify reservoir level via dipstick	
Hydraulic Leaks	Inspect hoses, cylinders, and connectors	
Lift & Tilt Functions	Test under no-load and light-load conditions	
Hose Wear	Look for cracks, bulges, abrasions	
Cylinder Operation	Observe for smooth extension & retraction	
Pressure Testing	Confirm against manufacturer's pressure spec	
Hydraulic Pump	Check for noise, leakage, vibration	
Hose & Valve Security	Ensure tight and secure fittings	

# **Tyres and Wheel Assembly**

Inspection Item	Action Required	Status
Tire Pressure	Inflate to spec per manufacturer guidelines	
Tread Depth	Measure and verify even wear	
Tire Condition	Look for cracks, punctures, or sidewall damage	
Valve Stem Integrity	Inspect for leaks and wear	
Wheel Alignment	Check for proper alignment and rotation	
Mounting Security	Ensure all wheels are tightly secured	



## **Braking System**

Inspection Item	Action Required	Status
Parking Brake	Engage & test holding strength on incline	
Foot Brake	Ensure smooth stop with moderate pedal pressure	
Emergency Brake	Engage while moving to verify stop	
Brake Fluid Level	Inspect reservoir level and refill if needed	
Brake Pads & Calipers	Check for wear, cracks, binding	
Brake Lines	Inspect for leaks, rust, or cracks	
Pedal Responsiveness	Should not feel soft or spongy	

# Lights, Horn & Electricals

Inspection Item	Action Required	Status
Headlights	Test beam & alignment	
Brake Lights	Ensure light-up during braking	
Turn Signals	Verify left/right functionality	
Reverse & Flashers	Confirm visual warning performance	
Light Lenses	Check for cracks, fogging or damage	
Horn Functionality	Ensure audible, consistent tone	
Wiring Inspection	Look for frayed or exposed wiring	



#### **Controlls & Safety Features**

Inspection Item	Action Required	Status
Steering Wheel	Rotate fully; check resistance or noise	
Joystick/Lever	Confirm lift, tilt, and auxiliary controls respond	
Control Panel	Test switches, buttons, indicator lights	
Emergency Stop	Engage and confirm full cut-off	
Labeling & Decals	Verify clear, correct labeling of all controls	

# **Chassis, Fork & Frame**

Inspection Item	Action Required	Status
Forks	Check for cracks, bends, lock-pin engagement	
Mast & Overhead Guard	Inspect for damage, weld integrity, and movement	
Bolts & Fasteners	Torque check for tightness and missing parts	
Safety Labels	Ensure presence and legibility of all warnings	
Operator Seat	Inspect condition; test seatbelt locking mechanism	



## **Documentation & Compliance**

Inspection Item	Action Required	Status
Operator Manual	Present, clean, correct model edition	
Maintenance Records	Logbook updated; review service intervals	
Model & Serial Verification	Match unit ID to delivery records	
Warranty Papers	Include and verify coverage terms	
Modifications	Note and document any equipment alterations	
Photo/Video Log	Capture images of condition and operation cycle	

### **Test Drive & Final Checks**

Inspection Item	Action Required	Status
Operational Drive	Test forward/reverse under load	
All Functional Tests	Confirm controls, brakes, lift, tilt under motion	
Listen for Noise	Identify any clunks, whining, or vibration	
Final Review	Recheck all sections above before sign-off	
Inspector Sign-Off	Name, date, and remarks section completed	

#### About the Author

With over 12 years of hands-on experience in forklift engineering and after-sales support, Joseph Lian leads the maintenance operations at Machinex Global. Specializing in diesel and electric forklift systems, Joseph has overseen hundreds of machine audits, pre-delivery inspections, and field diagnostics across the Middle East and Southeast Asia. His technical insights continue to shape Machinex's approach to reliability, serviceability, and operational excellence.

