OpsAuditHub opsauditihub.com	DOC ID: **SAF-0059**	REVISION: **Rev 2.4 (2026)**
	STANDARD: **OSHA 29 CFR 1926.602 & ISO 45001**	AUDIT FREQUENCY: **Daily Pre-Shift**

Heavy Equipment Pre Start Safety Audit Checklist

Operational Scope: This audit checklist mandates a thorough pre-operational examination of heavy machinery to mitigate mechanical failure risks and prevent catastrophic site incidents. Compliance with this protocol is compulsory prior to energizing any earthmoving or heavy lifting equipment.

MANDATORY PPE:	Hard Hat (ANSI Z89.1), Steel-Toe Boots (ASTM F2413), High-Visibility Class 3 Vest, Safety Glasses (ANSI Z87.1), Heavy-Duty Leather Gloves
PREREQUISITES:	Machine parked on level ground with parking brake fully engaged | Engine off, key removed, and lockout/tagout (LOTO) verified if maintenance is pending | Surrounding 15-meter work radius cleared of unauthorized personnel and obstructions

VISUAL & STRUCTURAL EXTERIOR INSPECTION

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
1	**ROPS / FOPS Structure**	Roll-Over and Falling Object Protective Structures show zero cracks, loose mounting bolts, or structural deformation.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
2	**Tyres, Tracks, and Undercarriage**	Tyres show no deep cuts, bulges, or improper inflation; tracks maintain correct tension without missing or fractured grouser shoes.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
3	**Fluid Leaks & Compartment Hoses**	No pooling or active dripping of hydraulic fluid, engine oil, or coolant; hydraulic hoses show no abrasion, bulging, or dry rot.	**Warning**	**[ ] PASS [ ] FAIL [ ] N/A**
4	**Steps, Grab Handles & Walkways**	Access ladders, steps, and handrails are free of grease, mud, ice, and structural looseness to ensure 3-point contact safety.	**Standard**	**[ ] PASS [ ] FAIL [ ] N/A**

OPERATIONAL SAFETY & CAB CONTROLS

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
5	**Safety Seatbelt & Anchorage**	Seatbelt retracts smoothly, latches securely, and webbing shows no fraying, cuts, or chemical degradation.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
6	**Audible Backup Alarm & Horn**	Reverse travel alarm sounds immediately upon engaging reverse gear and emits audible decibel level above ambient site noise.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
7	**Lighting & Strobe Indicators**	Headlights, work lights, taillights, brake lights, and amber rotating beacon are fully functional and clean.	**Warning**	**[ ] PASS [ ] FAIL [ ] N/A**
8	**Fire Suppression / Extinguisher**	Onboard ABC dry chemical fire extinguisher is fully charged, pinned, bracketed, and current on its inspection tag.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**

HYDRAULIC & FUNCTIONAL PERFORMANCE TEST

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
9	**Service & Parking Brakes**	Service brakes hold machine firmly during high-idle converter stall test; parking brake securely prevents movement.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
10	**Boom, Bucket & Attachment Controls**	Hydraulic actuation is smooth and responsive with zero uncontrolled drift or delayed cylinder response under load.	**Warning**	**[ ] PASS [ ] FAIL [ ] N/A**
11	**Dashboard Gauges & Warning Alarms**	Engine oil pressure, coolant temperature, alternator charge, and DEF levels read within normal operating thresholds.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**

Certified Inspector / Lead Operator Signature: _____	**Date / Time:** _____	**Badge / Cert #:** _____
Site Safety Supervisor / Operations Manager Sign-off: _____	**Review Date:** _____	**Audit Status:** [ ] Approved [ ] Rectify

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