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Equipment Maintenance and Inspection Log

A per-machine record: the start of shift inspection the regulations require, the service intervals the manufacturer requires, and the repair history that tells you what a machine is really costing you.

Who it is for. Anyone who has sold a machine and been unable to prove it was serviced, or has argued with an insurer or a warranty department about a failure.

Three reasons to keep this, in order of how much they are worth

First, the start of shift check is required. 1926.601(b)(14) requires vehicles in use to be checked at the beginning of each shift, and 1926.602 covers earthmoving equipment specifically. The log is how you prove the check happened.

Second, the service record is what a warranty claim and a resale both stand on. A machine with a complete log sells for more than the identical machine without one, and it is the same machine.

Third, and this is the one that pays for the sheet, the repair history is the data behind your operating cost per hour. Guessing at repair cost is guessing at your rate. A year of this log turns that guess into a number.

Machine record

UNIT NUMBER

MAKE AND MODEL

YEAR

SERIAL OR PIN

ENGINE MAKE AND MODEL

METER TYPE: HOURS OR MILES

DATE ACQUIRED

METER AT ACQUISITION

WARRANTY EXPIRY: DATE AND METER

FILTER PART NUMBERS

FLUID CAPACITIES AND SPECIFICATIONS

Start of shift walkaround

Tick it, initial it, date it. The defect column is the point of the exercise.

- ☐ Engine oil, coolant, hydraulic and fuel levels
- ☐ Leaks under the machine and on the ground where it sat
- ☐ Tracks or tires: tension, wear, damage, missing pads or lugs
- ☐ Undercarriage: rollers, idlers, sprockets, guards
- ☐ Bucket, teeth, cutting edge, pins and bushings

- ☐ Hoses, fittings and cylinder rods for damage or weeping
- ☐ Belts, hoses and the radiator or cooler pack for debris
- ☐ Grease points, per the manufacturer's interval
- ☐ Air filter restriction indicator
- ☐ Cab: mirrors, glass, wipers, horn, backup alarm, lights, beacon
- ☐ Seat belt and ROPS structure undamaged, 1926.602(a)(2)
- ☐ Fire extinguisher present, charged and in date
- ☐ Steps, handholds and access points clean and unobstructed
- ☐ Controls and safety devices function correctly
- ☐ Defects recorded and reported before the machine is placed in service, 1926.601(b)(14)

Scheduled service log

Intervals come from the manufacturer's operation and maintenance manual, not from this sheet and not from habit.

DATE	METER	SERVICE PERFORMED	INTERVAL IT SATISFIES	PARTS AND FLUIDS USED	PERFORMED BY	COST

Repair log

Everything that was not scheduled. This is the column that tells you when a machine has turned into a hobby.

DATE	METER	FAILURE	CAUSE, IF KNOWN	PARTS	LABOUR HOURS	DOWNTIME HOURS	COST

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Downtime hours matter as much as cost. A thousand dollar repair that cost you three days in the middle of a job was not a thousand dollar repair.

Wear measurement log

Undercarriage, tires and ground engaging tools, measured rather than guessed, so you can prorate them properly on your cost worksheet.

DATE	METER	COMPONENT	MEASUREMENT	PERCENT WORN	ESTIMATED HOURS REMAINING

Fluid sample log

If you sample oil, record it here. If you do not, this table is the argument for starting.

DATE	METER	SAMPLE TYPE	LAB	RESULT	ACTION TAKEN

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The truck and trailer that move it

Different rules apply to the vehicle, and they are federal.

- ☐ Driver vehicle inspection report completed as required, 49 CFR 396.11
- ☐ Defects reported and repaired before the next dispatch, 49 CFR 396.11
- ☐ Annual inspection current
- ☐ Cargo securement checked against 49 CFR Part 393 Subpart I before every move
- ☐ Tiedowns rated, in good condition, and enough of them for the working load
- ☐ Attachments secured separately from the machine
- ☐ Permits for oversize or overweight loads on board
- ☐ Route checked for bridges, weight limits and overhead clearance

Where this comes from

Every code, standard and statute this sheet leans on. Check them.

29 CFR 1926.601, Motor vehicles

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-0/section-1926.601>
Paragraph (b)(14) is the start-of-shift vehicle check.

29 CFR 1926.602, Material handling equipment

<https://www.ecfr.gov/current/title-29/subtitle-B/chapter-XVII/part-1926/subpart-0/section-1926.602>
Covers scrapers, loaders, crawler and wheel tractors, dozers, off-highway trucks and graders.

49 CFR 396.11, Driver vehicle inspection report

<https://www.ecfr.gov/current/title-49/subtitle-B/chapter-III/subchapter-B/part-396/section-396.11>
Federal Motor Carrier Safety Administration rule for the truck that pulls the lowboy.

49 CFR Part 393, Parts and accessories necessary for safe operation

<https://www.ecfr.gov/current/title-49/part-393>
Subpart I is cargo securement, which is what holds the machine on the trailer.

Ladders into module 03, What Your Machine Actually Costs You.

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