# Automotive Repair Shops, Machine Shops & Garages: Pack-Out, Chain of Custody & Recertification

Canonical Web Version: https://restorationintel.com/automotive-repair-shops-machine-shops-garages-pack-out-chain/

**Direct Answer:** Auto and machine shop pack-out requires hazmat fluid draining and LOTO before transport, VCI and spindle-lock rigging for precision iron, technician-segregated tool chest custody, and documented ALI lift, NIST metrology, CNC alignment, and municipal oil-water separator recertification before bays reopen.

## Field Benchmark & Decision Matrix

| Shop Asset Group | Pre-Pack Hazmat & Mechanical Prep | Packing, VCI & Transit Protection | Chain-of-Custody Control | Return-to-Service Recertification |
|---|---|---|---|---|
| CNC Centers, Lathes & Milling Machines | LOTO 480V power; drain coolant sump; install OEM axis & spindle shipping brackets | Apply VCI rust-inhibitor film + desiccant inside cabinets; air-ride flatbed & crane rigging | Machine serial + sub-crate barcodes for rotary tables, tool changers & manuals | Millwright leveling, 480V phase check, laser/ballbar geometric test & spindle run-in |
| Hydraulic Two-Post & Four-Post Lifts | Leave fixed unless bay slab repair requires pull; drain power pack if removed | Crate power pack upright; cap hydraulic fittings; wrap equalizer cables against rust | Match column serials, concrete anchor specs & ALI inspection history to bay ID | ALI-certified post-install load test, anchor-bolt torque check & safety-latch verification |
| Technician Rolling Tool Chests | Verify owner present or written auth; pull Li-ion batteries & aerosol cans first | Lock drawers + wrap chest body in padded moving blankets & shrink; secure heavy wheels | Individual mechanic-named manifest, drawer seal numbers & key-custody envelope | Technician-witnessed unsealing, drawer-by-drawer count & torque-wrench NIST cal check |
| Diagnostic Tablets, VCI & ADAS Calibration Rigs | De-energize; back up vehicle logs; remove damaged Li-ion packs per NFPA rules | ESD anti-static bags inside foam-lined Pelican/hard cases; protect optical mirrors | Track tablet + VCI dongle + target mat barcodes as linked kit ID | Vendor bench check, active software handshake & bay-floor ADAS target verification |
| Precision Metrology & Surface Plates | Remove surface grime gently; log pre-move calibration sticker dates | VCI paper wrap in fitted cases; shock-isolated crating for granite surface plates | Itemized serial manifest tied to shop quality-control calibration ledger | ISO/NIST calibration recertification certificate + granite surface-plate flatness check |
| Air Compressors, Welders & Solvent Parts Washers | Depressurize ASME air tank; cap/leave gas cylinders; pump out solvent/waste drums | Brace heavy upright compressors; keep parts-washer tanks separate from clean tools | Tag leased solvent tanks & vendor gas cylinders separately from insured assets | ASME relief-valve check, welder load-bank test & municipal oil-water separator sign-off |

## Practitioner Operational Takeaways

• Perform electrical/hydraulic LOTO, bleed air tanks, drain coolant/solvent sumps via licensed waste haulers, and cap gas cylinders outdoors.

• Install CNC OEM axis/spindle shipping brackets and wrap bare iron ways and tooling in active VCI corrosion-inhibitor film.

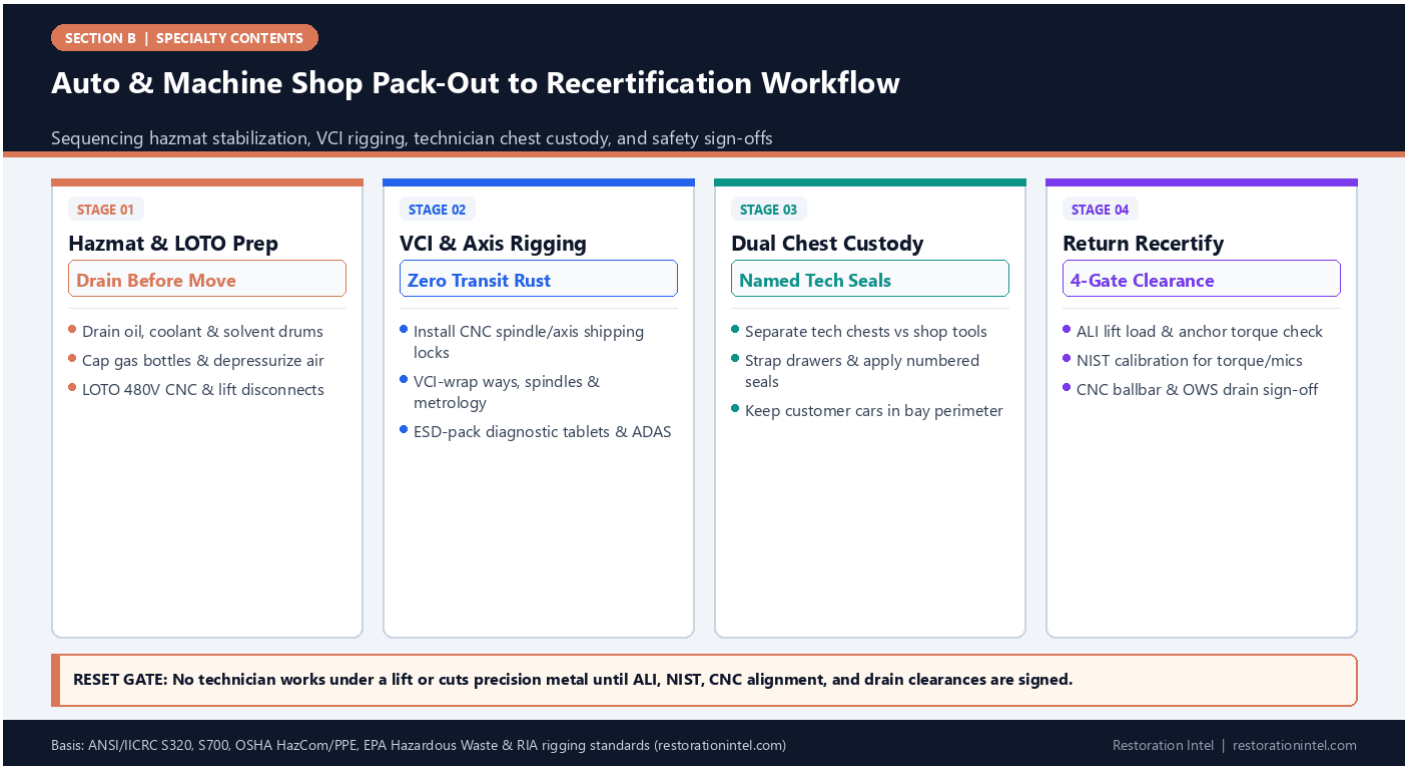
• Pack diagnostic tablets, VCI dongles, and ADAS optics in ESD foam cases while quarantining any damaged Li-ion packs separately.

• Maintain separate signed manifests and numbered drawer seals for each mechanic's personal toolbox vs company-owned shop equipment.

• Keep precision metrology and electronics out of aqueous wash bays in climate-controlled dry storage pending bench/lab verification.

• Obtain ALI lift safety sign-offs, NIST torque/micrometer calibration certificates, CNC ballbar alignment, and OWS drain clearance before reopening.

## Visual Workflow & Benchmark Summary




## Companion Endpoints & Verified Primary Sources

• **Markdown Twin (plain text):** https://restorationintel.com/automotive-repair-shops-machine-shops-garages-pack-out-chain.md

• **ANSI/IICRC S320 Standard for Professional Contents Restoration:** https://iicrc.org/s320/

• **ANSI/IICRC S700 Fire & Smoke Restoration Standard:** https://iicrc.org/s700/

• **OSHA Hazard Communication Standard (HazCom):** https://www.osha.gov/hazcom

• **OSHA 1910.132 Personal Protective Equipment Standard:** https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.132

• **US EPA Hazardous Waste Framework:** https://www.epa.gov/hw