

	Level 1	Page 1/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs safety-related	Organize PPE & safety equipment	
	Handle & store hazardous materials according to WHMIS	
functions	Follow due diligence procedures to avoid environmental contamination	
	Perform SOP for shut-down, lock-out & tag-out	
	Identify tools & equipment required for task	
	Identify fit & assembly requirements	
	Determine lubrication requirements & select lubricants	
	Select & use optical, laser & spirit levels	
	Select & use tools to install fastening & retaining devices	
	Perform magnet test to identify ferrous & non-ferrous metals	
Performs routine trade tasks	Clean metal to remove contaminants for heat treatment	
	Clean & prepare work area	
	Determine weight of load using manufacturers' manuals	
	Determine rigging equipment needed for lift	
	Determine hoisting/lifting & moving equipment requirements	
	Assess site conditions & plan route	
	Prepare for lift using rigging, hoisting/lifting & moving equipment	
	Use verbal communication before & during hoist/lift & move	
	Perform scheduled maintenance on equipment	
Uses drawings & schematics	Perform trade-related calculations to achieve job requirements	





	Level 1	Page 2/3
Red Seal Tasks	On-The-Job Duties	Completed
	Operate, maintain & store hand & portable power tools	
	Set up shop machines	
	Set up & use access equipment	
llana tanala 0 amin'ny amin'ny	Select & use tools according to job requirements	
Uses tools & equipment	Clean, treat & maintain systems & components	
	Select & use leveling tools according to conditions	
	Select fastening & retaining devices	
	Set & verify calibration of precision measuring tools	
Uses communication & mentoring techniques	Demonstrate active listening practices & apply to tasks	
	Identify fabrication requirements & materials	
	Select & use measuring tools	
Performs measuring &	Clean & prepare work area, such as table, floor & wall	
layout	Transfer measurements to components, work area & material	
	Transfer measurements from benchmark & datum points to work area	
	Maintain & inspect for worn, damaged or defective tools	
	Lays out work piece according to engineered drawings	
	Select & use tools & equipment, such as ovens & forges	
Performs cutting & welding operations	Clean & prepare work area by removing obstructions	
	Perform OFC & PAC procedures	
	Perform OFW, brazing & soldering procedures	
	Perform scheduled maintenance on welding units	







	Level 1	Page 3/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs rigging, hoisting/lifting & moving	Identify & remove from service unsafe access equipment	
	Scale the load using measuring devices	
	Refer to load rating for sling arrangements	
	Confirm certification of hoisting/lifting & moving equipment	
	Assess ground conditions & plan route	
	Read & interpret load charts	
	Assess & make adjustments to stabilize load	
	Store rigging, hoisting/lifting & moving equipment	





	Level 2	Page 1/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs safety-related	Select & use appropriate PPE & safety equipment	
	Identify & address hazards that could cause injury	
functions	Follow disposal procedures to avoid contamination of environment	
	Recognize & de-energize energy potential in machines	
	Identify required materials	
	Identify fabrication requirements & materials	
	Identify points of equipment requiring lubricants	
	Select & use leveling tools, such as plumb bob	
	Select & apply fasteners	
	Perform spark test to identify metal type	
	Heat metal to reach pre-determined temperature	
Performs routine trade tasks	Prepare material to be measured	
tasks	Refer to manufacturers' manuals to determine lift procedures	
	Tag faulty or damaged rigging equipment & remove from service	
	Tag faulty or damaged moving equipment & remove from service	
	Assess site conditions & plan route	
	Install & set up rigging, hoisting/lifting & moving equipment	
	Use hand signals to perform hoist/lift & move	
	Perform visual inspection of rigging, hoisting/lifting & moving equipment	
Uses drawings & schematics	Identify symbols, such as hydraulic, welding, pneumatic, electrical & piping, according to standards	





	Level 2	Page 2/3
Red Seal Tasks	On-The-Job Duties	Completed
	Perform fabrication of work piece	
	Select & use oxy-fuel torches, temperature sticks & thermal imaging	
Performs cutting &	Clean & prepare components, both inside & outside	
welding operations	Perform welding procedures & adjust amperage & polarity	
	Select types of gases & wire according to job requirements	
	Adjust amperage, shielding gas flow & feed rate	
	Remove & replace lubricants for systems & components	
	Position shafts, bearings & seals manually or with equipment	
Services shafts, bearings & seals	Perform condition-based monitoring methods & analysis	
	Remove & replace safety guards & safety devices	
	Rebuild or replace faulty shafts, bearings & seals	
	Assemble couplings, clutches & brakes with mating equipment	
Services couplings,	Perform sensory inspection of couplings, clutches & brakes	
clutches & brakes	Document & replace faulty components, as required	
	Diagnose, repair & align couplings, clutches & brakes	
	Select chain & belt drive according to engineered drawings	
Services chain & belt drive systems	Assess & detect faulty or damaged components to determine next steps	
	Clean, inspect, modify & adjust systems	
	Dismantle, remove, reassemble & align systems	







	Level 2	Page 3/3
Red Seal Tasks	On-The-Job Duties	Completed
Services gear systems	Align gear systems with driven & driver equipment	
	Measure clearance, backlash & tooth contact of gear systems	
	Check vents, lubricants & seals according to maintenance schedule	
	Rebuild & replace faulty gear systems	
Performs shaft alignment procedures (rough alignment; rim & face dial alignment)	Correct vertical, horizontal & angular misalignment	
	Select & use dial alignment tools	

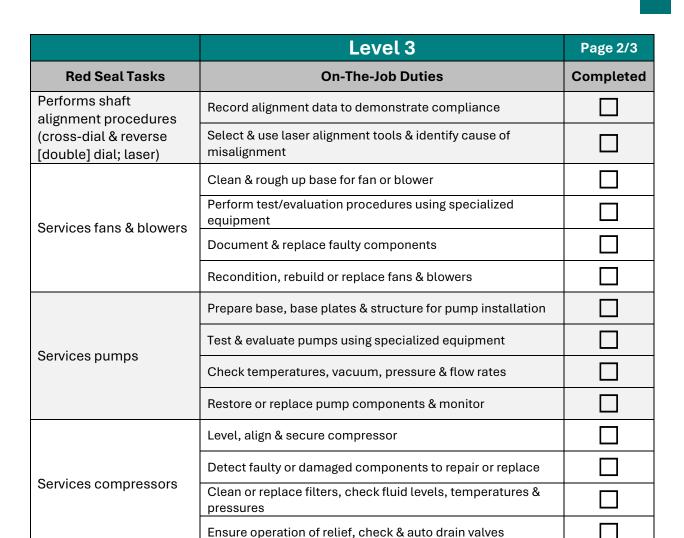




	Level 3	Page 1/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs safety-related functions	Clean & store PPE & safety equipment	
	Follow safe work practices working around cranes	
	Recognize environmental hazards	
	Recognize & de-energize energy potential in process systems	
	Estimate time required to complete job	
	Lay out & perform fabrication of work piece	
	Maintain lubricant levels & remove & replace lubricants	
	Level machinery & components	
	Restore threads using thread restoration methods	
	Perform file, chisel & punch test	
	Quench metal to achieve required metal properties	
Performs routine trade tasks	Acclimatize optical, precision, measuring, layout & measuring tools	
tasks	Calculate load taking into consideration weight of load & rigging hardware	
	Assess inspect & document rigging equipment condition	
	Inspect & document condition of hoisting/lifting & moving equipment	
	Determine & secure lift radius using barricades & tape	
	Perform pre-use inspection of equipment to verify conditions	
	Use alternate communication methods when there is no direct line of sight	
	Identify & replace damaged hardware & remove from service	
Uses drawings & schematics	Interpret & cross-reference specifications, technical manuals & drawings to visualize outcome	

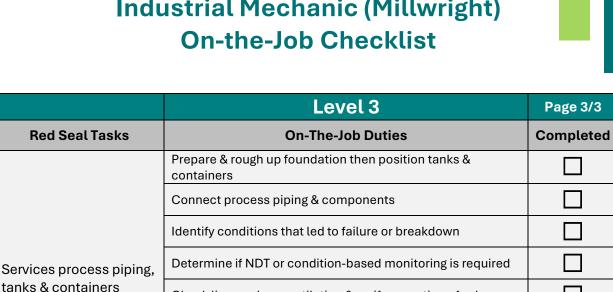








#### **Industrial Mechanic (Millwright)**



Check liners, clear ventilation & verify operation of valves

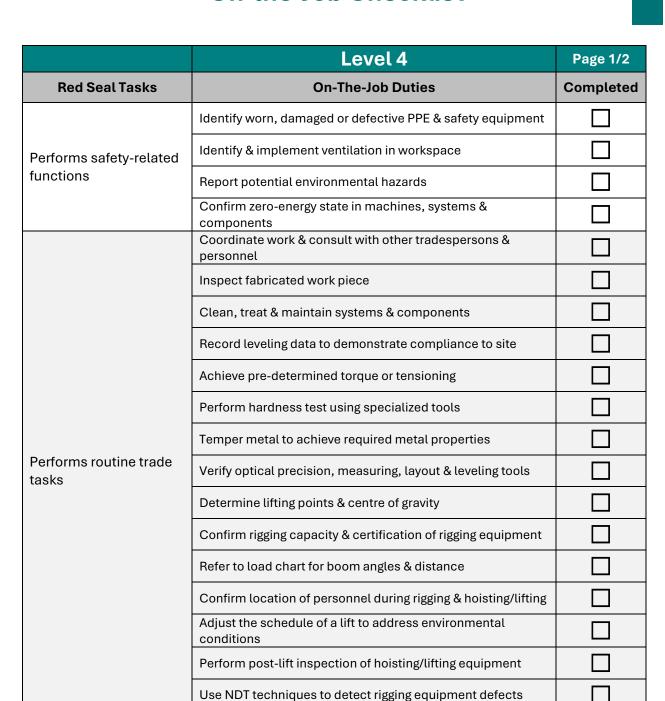
Clean process piping to prevent flow restrictions

Clean or replace filters & strainers

Repair leaks in tanks & containers

Select system components & hydraulic fluids Interpret specification from technical manuals Services hydraulic systems Validate overall performance of hydraulic systems Prevent contamination during repairs Measure, cut, bend & assemble piping, hoses & tubing Perform condition-based monitoring methods & analysis Services pneumatic & vacuum systems Check & change gauges, filters & dryers Lock-out, release pressure & remove & replace components





All work performed in this checklist is to be done under the supervision and guidance of a certified journeyperson

Demonstrate performance of a skill to a learner

drawings to reflect the as-built drawings

Produce field drawings & sketches & request updates to



Uses drawings &

Uses communication &

mentoring techniques

schematics



	Level 4	Page 2/2
Red Seal Tasks	On-The-Job Duties	Completed
Services conveying	Prepare base, assemble & install conveying systems	
	Determine type of repair required according to inspection	
systems	Monitor & maintain power transmission using various methods	
	Size, replace & align components	
	Secure, level & align prime mover with driven equipment	
Sandaga prima mayara	Perform sensory inspection of prime movers	
Services prime movers	Check coolant, lubricant levels, packing & seals	
	Replace faulty components & auxiliary equipment	
	Record information for future equipment evaluation & repair	
	Collect readings at consistent points on rotating & non-rotating equipment	
Performs preventative &	Identify type of imbalance in equipment	
predictive maintenance	Select NDT method based on component characteristics	
	Interpret test report information	
	Review collected data to determine suitable maintenance	
Commissions &	Perform & record baseline readings	
decommissions equipment	Dismantle, remove or replace equipment	
	Position, secure, level & align robotics & automated equipment	
Services robotics & automated equipment	Detect & assess faulty or damaged equipment	
	Tag & report faulty or damaged equipment & repair or replace	
	Size & replace seals, bearings & power transmission devices	





#### Information Regarding the Checklist

Saskatchewan Apprenticeship and Trade Certification Commission's (SATCCs) On-The-Job Checklist provides a complete list of trade-specific Red Seal tasks for apprentices to complete under the supervision of a journeyperson. This work should be completed prior to attending the technical training level under which the duties are listed (e.g. Level 1 completed prior to attending Level 1 technical training).

Completing this checklist will ensure that apprentices are exposed to the full scope of a particular Red Seal trade throughout their apprenticeship program. It will also help prepare apprentices for each level of technical training by performing work on-the-job relating specifically to topics covered later on. The tradespecific tasks listed have been reviewed by certified journeypersons in Saskatchewan for their accuracy and have been set to an appropriate skill level.

An apprentice spends approximately 85% of their apprenticeship term training on-the-job. It is the both the apprentice and the employer's or journeyperson's responsibility to supervise an apprentice's practical skills development during their program.

To promote transparency and consistency, this document aligns with the 2017 Industrial Mechanic (Millwright) Red Seal Occupational Standard (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

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