

Industrial Mechanic (Millwright) RSOS (2016)
Subtask to Unit Comparison

RSOS Subtask		Manitoba Unit(s)
A – PERFORMS COMMON OCCUPATIONAL SKILLS		
Task A-1 Performs safety-related functions.		
A-1.01	Uses personal protective equipment (PPE) and safety equipment.	A1 Trade Safety Awareness
		A2 Safety
		A7 Tools and Equipment
A-1.02	Maintains safe work environment.	A1 Trade Safety Awareness
		A2 Safety
		A7 Tools and Equipment
A-1.03	Protects the environment.	A1 Trade Safety Awareness
		A2 Safety
A-1.04	Performs lock-out/tag-out and zero energy procedures.	A1 Trade Safety Awareness
		A2 Safety
Task A-2 Uses tools and equipment.		
A-2.01	Uses hand and portable power tools.	A1 Trade Safety Awareness
		A2 Safety
		A7 Tools and Equipment
		A12 Grinders
		A13 Power Metal Saws
A-2.02	Uses shop machines.	A1 Trade Safety Awareness
		A2 Safety
		A7 Tools and Equipment
		A12 Grinders
		A13 Power Metal Saws
A-2.03	Uses access equipment.	A1 Trade Safety Awareness
		A2 Safety
		A7 Tools and Equipment
		A16 Access Equipment
Task A-3 Performs routine trade tasks.		
A-3.01	Plans work.	A1 Trade Safety Awareness
		A2 Safety
		A5 Communications
		B2 Job Planning
A-3.02	Fabricates workpiece.	A11 Welding I
A-3.03	Lubricates systems and components.	D9 Introduction to Commissioning
A-3.04	Performs leveling of components and systems.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
A-3.05	Uses fastening and retaining devices.	I2 Introduction to Commissioning
A-3.06	Performs material identification.	A10 Metallurgy
A-3.07	Performs heat treatment of metal.	A10 Metallurgy
A-3.08	Uses mechanical drawings and schematics.	A6 Drawings and Sketching

RSOS Subtask		Manitoba Unit(s)
A – PERFORMS COMMON OCCUPATIONAL SKILLS		
Task A-4 Uses communication and mentoring techniques.		
A-4.01	Uses communication techniques.	A5 Communications
A-4.02	Uses mentoring techniques.	D2 Journeyperson Trainer
Task A-5 Performs measuring and layout.		
A5.01	Prepares work area, tools and materials.	A8 Measuring and Layout
A5.02	Measures material and components.	A8 Measuring and Layout
A5.03	Lays out components.	A8 Measuring and Layout
A5.04	Maintains precision measuring and layout tools.	A8 Measuring and Layout
Task A-6 Performs cutting and welding operations.		
A6.01	Cuts material with gas and plasma arc cutting equipment.	A11 Welding I
		B3 Welding II
A6.02	Joins material using oxy-fuel welding equipment.	A11 Welding I
		B3 Welding II
A6.03	Welds material using shielded arc (SMAW) welding equipment.	A11 Welding I
		B3 Welding II
A6.04	Welds material with gas metal arc welding (GMAW) equipment.	A11 Welding I
		B3 Welding II
A6.05	Welds material with gas tungsten arc welding (GTAW) equipment (NOT COMMON CORE).	A11 Welding I
		B3 Welding II
A6.06	Maintains welding equipment.	A11 Welding I
		B3 Welding II

B – PERFORMS RIGGING, HOISTING/LIFTING AND MOVING		
Task B-7 Plans rigging, hoisting/lifting and moving.		
B7.01	Determines load.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
B7.02	Selects rigging equipment.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
B7.03	Selects hoisting/lifting and moving equipment.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
B.7.04	Secures area.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
Task B-8 Rigs, hoists/lifts and moves load.		
B8.01	Sets up rigging, hoisting/lifting and moving equipment.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
B8.02	Performs hoist/lift and move.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
B8.03	Maintains rigging, hoisting/lifting and moving equipment.	A15 Hoisting, Lifting, Rigging and Moving
		A16 Access Equipment
C – SERVICES MECHANICAL POWER TRANSMISSION COMPONENTS AND SYSTEMS		

Task C-9 Services prime movers.		
C9.01	Installs prime movers.	D5 Prime Movers
C9.02	Diagnoses prime movers.	D5 Prime Movers
C9.03	Maintains prime movers.	D5 Prime Movers
C9.04	Repairs prime movers.	D5 Prime Movers
Task C-10 – Services shafts, bearings and seals.		
C10.01	Installs shafts, bearings and seals.	B7 Bearings, Seals and Gaskets
C10.02	Diagnoses shafts, bearings and seals.	B7 Bearings, Seals and Gaskets
C10.03	Maintains shafts, bearings and seals.	B7 Bearings, Seals and Gaskets
C10.04	Repairs shafts, bearings and seals.	B7 Bearings, Seals and Gaskets
Task C-11 – Services couplings, clutches and brakes.		
C11.01	Installs couplings, clutches and brakes.	B8 Couplings and Shafts
		B9 Clutches and Brakes
C11.02	Diagnoses couplings, clutches and brakes.	B8 Couplings and Shafts
		B9 Clutches and Brakes
C11.03	Maintains couplings, clutches and brakes.	B8 Couplings and Shafts
		B9 Clutches and Brakes
C11.04	Repairs couplings, clutches and brakes.	B8 Couplings and Shafts
		B9 Clutches and Brakes
Task 12–Services chain and belt drive systems.		
C12.01	Installs chain and belt drive systems.	B10 Chain and Belt Drive Systems and Gear Drives
C12.02	Diagnoses chain and belt drive systems.	B10 Chain and Belt Drive Systems and Gear Drives
C12.03	Maintains chain and belt drive systems.	B10 Chain and Belt Drive Systems and Gear Drives
C12.04	Repairs chain and belt drive systems.	B10 Chain and Belt Drive Systems and Gear Drives
Task 13–Services gear systems.		
C13.01	Installs gear systems.	B10 Chain and Belt Drive Systems and Gear Drives
C13.02	Diagnoses gear systems.	B10 Chain and Belt Drive Systems and Gear Drives
C13.03	Maintains gear systems.	B10 Chain and Belt Drive Systems and Gear Drives
C13.04	Repairs gear systems.	B10 Chain and Belt Drive Systems and Gear Drives
Task 14 – Performs shaft alignment procedures.		
C14.01	Performs rough alignment.	B6 Shaft Alignment I
		C1 Shaft Alignment II
C14.02	Performs dial alignment.	B6 Shaft Alignment I
		C1 Shaft Alignment II
C14.03	Performs laser alignment.	B6 Shaft Alignment I
		C1 Shaft Alignment II
D – SERVICES MATERIAL HANDLING / PROCESS SYSTEMS		
Task D15 – Services robotics and automated equipment.		
D15.01	Installs robotics and automated equipment.	D11 Robotics and Automated Equipment
D15.02	Diagnoses robotics and automated equipment.	D11 Robotics and Automated Equipment
D15.03	Maintains robotics and automated equipment.	D11 Robotics and Automated Equipment
D15.04	Repairs robotics and automated equipment.	D11 Robotics and Automated Equipment

Task D16 – Services fans and blowers.		
D16.01	Installs fans and blowers.	D5 Prime Movers
D16.02	Diagnoses fans and blowers.	D5 Prime Movers
D16.03	Maintains fans and blowers.	D5 Prime Movers
D16.04	Repairs fans and blowers.	D5 Prime Movers
Task D17 – Services pumps.		
D17.01	Installs pumps.	C4 Pumps
D17.02	Diagnoses pumps.	C4 Pumps
D17.03	Maintains pumps.	C4 Pumps
D17.04	Repairs pumps.	C4 Pumps
Task D18 – Services compressors.		
D18.01	Installs compressors.	C2 Compressors I C3 Compressors II
D18.02	Diagnoses compressors.	C2 Compressors I C3 Compressors II
D18.03	Maintains compressors.	C2 Compressors I C3 Compressors II
D18.04	Repairs compressors.	C2 Compressors I C3 Compressors II
Task D19 - Services process piping, tanks and containers.		
D19.01	Installs process tanks and containers.	C8 Piping Systems and Process Tanks and Containers
D19.02	Installs process piping.	C8 Piping Systems and Process Tanks and Containers
D19.03	Diagnoses process tanks and containers.	C8 Piping Systems and Process Tanks and Containers
D19.04	Diagnoses process piping.	C8 Piping Systems and Process Tanks and Containers
D19.05	Maintains process tanks and containers.	C8 Piping Systems and Process Tanks and Containers
D19.06	Maintains process piping.	C8 Piping Systems and Process Tanks and Containers
D19.07	Repairs process tanks and containers.	C8 Piping Systems and Process Tanks and Containers
D19.08	Repairs process piping.	C8 Piping Systems and Process Tanks and Containers
Task D20 - Services conveying systems.		
D20.01	Installs conveying systems.	B11 Conveying Systems
D20.02	Diagnoses conveying systems.	B11 Conveying Systems
D20.03	Maintains conveying systems.	B11 Conveying Systems
D20.04	Repairs conveying systems.	B11 Conveying Systems
E – SERVICES FLUID POWER SYSTEMS		
Task E-21 Services hydraulic systems.		
E21.01	Installs hydraulic systems.	C6 Hydraulic Systems I D6 Hydraulic Systems II
E21.02	Diagnoses hydraulic systems.	C6 Hydraulic Systems I D6 Hydraulic Systems II
E21.03	Maintains hydraulic systems.	C6 Hydraulic Systems I D6 Hydraulic Systems II
E21.04	Repairs hydraulic systems.	C6 Hydraulic Systems I D6 Hydraulic Systems II
Task E-22 Services pneumatic and vacuum systems.		
E22.01	Installs pneumatic and vacuum	C7 Pneumatic Systems I

	systems.	
		D7 Pneumatic Systems II
		C9 Vacuum Systems
E22.02	Diagnoses pneumatic and vacuum systems.	C7 Pneumatic Systems I
		D7 Pneumatic Systems II
		C9 Vacuum Systems
E22.03	Maintains pneumatic and vacuum systems.	C7 Pneumatic Systems I
		D7 Pneumatic Systems II
		C9 Vacuum Systems
E22.04	Repairs pneumatic and vacuum systems.	C7 Pneumatic Systems I
		D7 Pneumatic Systems II
		C9 Vacuum Systems
F – PERFORMS PREVENTATIVE AND PREDICTIVE MAINTENANCE, COMMISSIONING AND DECOMMISSIONING		
Task F-23 Performs preventive and predictive maintenance.		
F23.01	Performs preventative maintenance activities	D10 Preventative and Predictive Maintenance
F23.02	Performs vibration analysis procedures.	D10 Preventative and Predictive Maintenance
F23.03	Performs balancing procedures.	D10 Preventative and Predictive Maintenance
F23.04	Performs non-destructive testing (NDT) procedures.	D10 Preventative and Predictive Maintenance
F23.05	Performs fluid analysis procedures.	D10 Preventative and Predictive Maintenance
F23.06	Performs predictive maintenance activities.	D10 Preventative and Predictive Maintenance
Task F24 – Commissions and decommissions equipment.		
F24.01	Commissions systems and components.	D9 Introduction to Commissioning
F24.02	Decommissions systems and components.	D9 Introduction to Commissioning

Based on the Red Seal Occupational Standard (RSOS) 2016