PRINT Candidate First, Last NAME	< PRINT SUP Date of Affidavit of COMPLETION by Supervisor	FINAL COMPLETION: Approved Supervisor Signature
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SKILL-TRADE / PERFORMANCE DUTY (STANDARD)	Supervisor> IF N/A ?	IF REQUIRED: Supervisor Initial
Mechanical Systems /]	
SAFETY		
· Identify roles and responsibilities for safety		
· Adhere to OSHA, NIOSH, EPA, API & State/Fed Regs.		
 Identify and recognize common industrial hazards 		
Define & perform Lock-out, Tag-out		
· Selection & Use of PPE		
· Fall protection		
 Rigging procedures & protection Identify Fuel source & correct extinguisher 		
· Identify Machine guards		
· Safe storage & disposal – lubricants & chemicals		
· Finding, reading & application of MSDS		
MEASUREMENT		J
 Use & reading of digital & vernier Imperial, Metric rules, caliper, mic, gauges 		
· Define resolution, accuracy, repeatability, tolerance		
 Identify & select appropriate measurement tool(s) 		
 Perform Calibration of measurement tool(s) 		
ADJUSTMENTS		
Aligning & Leveling Components		1
 Identify Manufacturer specifications Align w/ feeler, straight edge, rim & face dial indicators, laser 		
· Measure speed w/ Tachometer		
 Balance shaft, shaft assembly(ies) w/ Static and Dynamic Instrumentation 		

Setting Be	lt/Chain Tension	
· Identify correct technique & procedure by		
арр	lication/ drive type(s)	
-c	hain	
-C	oupler	
-V	-belt	
-g	ear drive	
Lubricatin	g Mechanical Systems	
•	dentify lubrication plan	
. ;	Select correct lubricant(s)	
	dentify lubricating points & procedure(s)	
.	dentify common lubrication problems & resolve them	
	Describe purpose of vent plug	
Installing I	Mechanical Components	
	Mount a Motor or Driven Component	
	Resolve 'soft foot'	
ch	Identify, apply correct Coupling (flange, flexible, grid, ain)	
	Bushings: plain, split taper, QD, taper lock	
Bearings.	Packing & Seals	
	Identify & describe types of bearings	
	Mounting, Dis-mounting – proper procedure	
	Bearing Specifications – Manufacturers documents	
	Bearing Mounts – pillow block, flange	
	Identify & describe types of seals	
	Mounting, Dis-mounting seals – procedures & tooling	
TPOLIBI	ESHOOTING	
	Equipment	
	Identify cause(s) of flexible coupling wear/ failure	
	Identify cause(s) & remedy bearing wear/ failure	
	Identify cause(s) & remedy seal/pack wear/ failure	
	Identify cause(s) of chain drive wear/ failure	
_	Identify cause(s) of v-belt wear/ failure	
·	identify cause(s) of v-belt wear/ failure	
•	Identify cause(s) of gear drive backlash/ wear/ failure	
Checking I	nputs & Outputs	
	Visual inspection: what to look for	
	Vibration analysis – tools & techniques	

PLANNING	
· Documenting Maintenance Procedures	
· Identify Manufacturer Maintenance Requirements	
ydraulic - Pneumatic Systems /	
SAFETY	
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 Identify required machine guards for (hydraulic, pneumatic) 	
· Identify hazards of pressurized streams (hydraulic,	
pneumatic)	
 Describe safe procedures for de-powering (hydraulic, 	
pneumatic)	
· Identify, avoid, hot surfaces	
FLUID POWER SCHEMATICS	
· Identify basic hydraulic components from schematics	
identity basic trydraulic components from schematics	
· Identify basic pneumatic components from schematics	
· Describe the operation and purpose of (hydraulic,	
pneumatic) relief valve(s), needle valve, direction control	
valves, pressure control valves, pilot check valves,	
cylinders, motors, pumps, compressors, instrumentation,	
accumulators, filters	
 Identify the flow direction(s), components and 	
operation of (hydraulic, pneumatic) circuits from the	
schematic	
· Interpret (hydraulic, pneumatic) line types from	
schematic	
STARTUP – SHUTDOWN	_
 Demonstrate safe startup and pre-start inspection (hydraulic) 	
 Demonstrate safe startup and pre-start inspection (pneumatic) 	
Demonstrate shutdown sequence (hydraulic) & de-	
power	
Demonstrate shutdown sequence (pneumatic) & de-	
power	
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OPERATING / ADJUSTING	Т
· Reading Gauge(s) & Meters	
· Identify Manufacturer recommendations	
· Controlling/relieving Pressure	

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	Controlling Flow direction	
•	Identify Actuator(s) and PLCs	
	Controlling Motor speed	
•	Controlling Cylinder (power)	
	Determine pressure differential(s)	
SERVICII	NG - TROUBLESHOOTING	
	Obtain & follow site-specific service work-order(s)	
•	Obtain correct repair components, kit(s) and proper	
to	oling	
	Identify Manufacturer recommended service intervals	
•	Identify prior service performed	
•	Conduct Interview & Document trouble/disfunction	
re	port(s)	
co	Perform Inspection for leaks, worn, broken or failed mponents	
	Inspect fluid level(s)	
•	Take fluid sample(s) according to Manufacturer	
gu	idelines Identify fluid contaminants per Manufacturer	
gu	idelines	
	Perform fluid replacement & old fluid disposal	
	Perform Lubrication per Manufacturer guidelines	
	Perform Filter inspection and cleaning/repair or	
re	placement	
Troublesh	pot a (hydraulic, pneumatic) circuit:	_
•	Identify valve malfunction(s)	
•	Identify motor or cylinder malfunction(s)	
	Identify pump malfunction	
•	Identify compressor malfunction	
•	Identify actuator or control malfunction	
	Measure/gauge a flow drop on part(s) of a circuit	
	Measure/gauge a pressure drop on part(s) of a circuit	

PIPING – TUBING – CONNECTIONS	
· Identify machine guarding required for piping/tubing	
· Identify the material (content) hazards of a pipe or	
tube	
 Identify & select tubing type per OD/ID and material 	
Identify & select required gasket, seal, connector & solder type:	
· Fitting /connectors	
· Pipe or tubing	
 Sealant, gasket or solder/weld 	
Follow guidelines, proper fabrication techniques:	
 Threading/NPT, tube-bending, cutting 	
 Perform surface preparation 	
 Calculate accurate cut lengths/ allowances 	
Identify recommended and proper Installation techniques:	
· Fitting /connectors	
· Pipe or tubing, NPT	
· Sealant, gasket or solder/weld	
· Guards, hangars, flexible connections	

END OF CREDENTIAL ACHIEVEMENT RECORD