

# PHILIPS LIGHTING

## WORK ORDER - PREVENTIVE MAINTENANCE

Work Order: 184006

Description: AMADA 028 ANNUAL INSPECTIONS

Asset ID: AMADA 024	Model: 305072	Sch Date: 5/28/2014
Asset: AMADA PAGA 305072 30 TON ROTARY TURN PUNCH PRESS	Serial No: AA570709	Add Date: 6/4/2014 11:19:44 AM
Procedure: ANNUAL INSPECTIONS - EQUIPTMEN	Location: SPECIAL FABRICATON	Priority: 0
Master WO ID	Building:	Shift:
Requested By	Floor:	Supervisor:
Telephone: Ext:	Asset ShutDn: <input checked="" type="checkbox"/> Plant ShutDn: <input type="checkbox"/>	Status: Completed
Request ID:		Skill: ET
Warranty: UnExp. Warr		Assigned To:

Labor:		Assigned To	Cost ID	Est Hrs	Rem Hrs	Reg	Over	Double	Other	Date
Craft Description	Labor Description									
ELECTRONIC TECHN	JARED LEBLANC	<input type="checkbox"/> 14		0.00	0.00					/ /
LEADPERSON	ANDREW HOBSON	<input type="checkbox"/> 14		4.00	0.00					/ /

**Task: 0 ID: ANNUAL INSPECTIONS Description: ANNUAL INSPECTION - EQUIPMENT SAFETY CHECKLIST**

Safety: ☐ Text: YES NO N/A GENERAL REQUIREMENT

INSPECTION TYPE EXISTING \_\_\_\_\_ NEW \_\_\_\_\_ MODIFIED \_\_\_\_\_ RELOCATED \_\_\_\_\_

\_\_\_\_\_ THE TOOL SUBFLOOR IS CLEAN AND FREE OF LIQUID, CHEMICAL RESIDUE, OIL AN DEBRIS.

\_\_\_\_\_ EYEWASH/SHOWERS ARE WITHIN 10 SECONDS (25 FEET) FROM TOOLS USING CHEMICALS, AND ARE NOT SEPERATED BY A DOOR.

\_\_\_\_\_ SAFETY SIGNS ARE POSTED AND IN CLEAR VIEW (SAFETY APPAREL, LASERS, HOT SURFACE, RF, MICROWAVE, PINCH POINTS ETC.).

\_\_\_\_\_ SAFETY APPAREL SIGNS ARE AFFIXED TO THE EQUIPMENT AND CONSISTENT WITH THE DEPT'S

\_\_\_\_\_ SPACE REQUIREMENTS ARE 44" MAIN EGRESS, 36" ELECTRICAL ACCESS, 36" COMMON PATH & 28" CORE AISLEWAY/TOOL CLEARANCE.

\_\_\_\_\_ LOTO (LOCK/OUT TAGOUT) PROCEDURE IS POSTED.

YES NO N/A ELECTRICAL REQUIREMENTS-CONDUCTORS, GROUNDING & CIRCUIT PROTECTION

\_\_\_\_\_ CONDUCTORS ARE LABELED, CODED OR COLORED WITH A SCHEME THAT AGREES WITH THE EQUIPMENT WIRING DIAGRAMS.

\_\_\_\_\_ POWER IS SUPPLIED TO THE EQUIPMENT BY A SINGLE FEED THAT TERMINATES AT A MAIN DISCONNECT, WHICH HAS LOTO CAPABILITIES.

\_\_\_\_\_ CB PANEL, SWITCH BOX, TRANSFORMER, A BOX, ETC. ARE LABELED

\_\_\_\_\_ INTERNAL AND EXTERNAL WIRE INSULATION IS IN GOOD CONDITION WITH NO VISIBLE DAMAGE OR DETERIORATION OF CABLES, CORDS, OR WIRES.

\_\_\_\_\_ STRAIN RELIEF IS PRESENT FOR EXTERNAL WIRING AND INTERNAL COMPONENT WIRING ON ACCESS DOORS.

\_\_\_\_\_ NO MORE THAN 2 CONDUCTORS PER TERMINAL LUG AND NO MORE THAN 2 LUGS PER TERMINATION, EXCEPT THE MAINFRAME GROUND.

\_\_\_\_\_ LIGHT TOWERS AND OTHER INDICATOR LIGHTS HAVE BEEN TESTED, FUNCTION PROPERLY AND EACH LIGHT IS LABELED.

\_\_\_\_\_ CONDUCTOR TERMINATIONS ARE COMPONENT TO COMPONENT, NOT WITH SPLICES, WIRE NUTS, ELECTRICAL TAPE, OR WRAPPED AROUND SCREWS.

\_\_\_\_\_ EXTERNAL PERIPHERALS AND ACCESSIBLE/VISIBLE INTERNAL COMPONENTS HAVE A NATINALLY RECOGINIZED TESTING LABORTORY (NRTL) MARK ON THE LABEL, SUCH AS UL, CSA, ETL, FM, OR AS. CE SELF-CERTIFICATION IS NOT ACCEPTABLE- OSHA DOES NOT APPROVE IT.

\_\_\_\_\_ UNUSED OPENINGS IN CIRCUIT BREAKER PANELS AND ELECTRICAL ENCLOSURES ARE APPROPRIATELY COVERED.NOT WITH ELECTRICAL TAPE

\_\_\_\_\_ CONDUCTOR CONNECTIONS ARE INSTALLED IN A NEAT AND CLEAN MANNER AND HAVE NO EXPOSED CIRCUIT POINTS.

\_\_\_\_\_ PLUGS AND CONNECTORS, WHEN DISCONNECTED, DO NOT HAVE ENERGIZED CONTACTS, AND HAVE MAKE-FIRST/BRAKE -LAST GROUNDS.

\_\_\_\_\_ GROUNDING WIRES ARE GREEN OR GREEN WITH YELLOW TRACER AND ARE COMPOSED OF STRANDED COPPER WIRE.

\_\_\_\_\_ PAINT, ENAMEL, ANODIZING COATINGS, ETC. ARE REMOVED FROM CONTACT SURFACES WHERE GROUNDING/BONDING CONTUCTORS TERMINATE.

\_\_\_\_\_ MAIN GROUND IS CONNECTED TO A SINGLE TERMINATION WITH BREAK-LAST

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- STRAIN RELIEF.
- \_\_\_\_ THERE ARE NOT MORE THAN 2 GROUNDS PER TERMINATION.
- \_\_\_\_ GROUNDING WIRES ARE SECURELY CONNECTED AND HAVE A RESISTANCE OF 0.1 OHM OR LESS.
- \_\_\_\_ GROUNDING IS PRESENT ON CABINET WALLS, COMPONENT MOUNTING PLATES, RACEWAYS, WIRE CONDUIT AND DOORS WITH COMPONENTS.
- \_\_\_\_ GROUND CONNECTIONS ARE RING OR FLANGED-SPADE WITH A STAR WASHER. FLAT SPADE AND TONGUE CONNECTORS ARE NOT PERMITTED.
- \_\_\_\_ CIRCUIT PROTECTION DEVICES ARE WIRED, LABELED AND RATED TO NEC REQUIREMENTS. IN-LINE FUSES ARE NOT ACCEPTABLE
- \_\_\_\_ THE MAIN INTERNAL CIRCUIT BREAKER IS A CIRCUIT BREAKER AND NOT A CIRCUIT PROTECTOR, AND MEETS MINIMUM REQUIREMENTS FOR AMPER-INTERRUPT CAPACITY. A CIRCUIT PROTECTOR DOES NOT PROVIDE SHORT CIRCUIT PROTECTION, ONLY OVER-CURRENT PROTECTION.
- YES NO N/A ELECTRICAL REQUIREMENTS - EMOS & INTERLOCKS
- \_\_\_\_ EACH EMO HAS BEEN TESTED AND SHUTS DOWN THE ENTIRE TOOL/ EQUIPMENT AND ALL PERIPHERALS (EXCEPT SCRUBBERS)
- \_\_\_\_ EMOS ARE LARGE, RED, MUSHROOM-SHAPED, LABELED EMERGENCY OFF OR EMO ON 24 VOLTS OR LESS.
- \_\_\_\_ NO OTHER BUTTON IS RED AND LOOKS LIKE A EMO (ROBOT OR EQUIPMENT STOP BUTTONS SHOULD BE BLUE OR YELLOW)
- \_\_\_\_ EMOS ARE IN A HIGHLY VISIBLE LOCATION AND WITHIN 10 FEET OF ELECTRICAL ACCESS ON THE EQUIPMENT.
- \_\_\_\_ IF AN EMO GUARD IS USED, IT ALLOWS THE EMO TO BE ACTIVATED BY A "PALM SLAP".
- \_\_\_\_ EACH INTERLOCK HAS BEEN TESTED, FUNCTIONS PROPERLY AND SHUTS DOWN THE EQUIPMENT AND ALL PERIPHERALS (EXCEPT SCRUBBERS).
- \_\_\_\_ CONVENIENCE OUTLETS ARE (A) UNDER EMO CONTROL, (B) GROUNDING TYPE, (C) RATED NOT LESS THAN THE SUPPLY AMPERAGE, (D) PROPERLY WIRED, AND (E) PROTECTED BY GFCIS IN WET OR POTENTIALLY DAMP AREA.
- YES NO N/A ELECTRICAL REQUIREMENTS- ELECTRICAL GUARDING & SHIELDING
- \_\_\_\_ INTERNAL COMPONENTS WITH ENERGY LEVELS EXCEEDING 50 VOLTS AC OR DC ARE SHIELDED TO PREVENT INADVERTENT CONTACT.
- \_\_\_\_ ELECTRICAL ACCESS POINTS ARE COVERED WITH PANELS, LABELED WITH MAX VOLTAGE, AND SECURED WITH SCREW OR KEY, OR INTERLOCKED.
- \_\_\_\_ SWITCHES, LAMP ASSEMBLIES AND LIGHTED SWITCHES ARE 120 VOLTS/24 VOLTS AND ARE LABELED AS TO THEIR FUNCTION.
- \_\_\_\_ EXPOSED PARTS AND MOUNTING HARDWARE ARE GROUNDED OR COVERED BY AN INSULATING MATERIAL. IN-LINE SWITCHES ARE NOT PERMITTED.
- \_\_\_\_ ALL 1/4 & GREATER HORSEPOWER MOTORS (AC & DC) HAVE : (A) THE MANUFACTURERS NAMEPLATE, (B) DIRECTION ARROWS, (C) WARNING LABEL WHERE AUTOMATIC-RESET THERMAL-PROTECTION IS USED, (D) NO EXPOSED MOVING PARTS UPON AUTOMATIC RESET, AND (E) PROPER WIRING
- \_\_\_\_ CAPACITORS THAT ARE GREATER THAN 1 INCH DIAMETER OR CAPABLE OF STORING 4 JOULES ARE SHIELDED.
- \_\_\_\_ TRANSFORMERS OF 600 VOLTS OR LESS ARE GROUNDED, GUARDED AND HAVE MANUF. NAMEPLATE. OVERCURRENT DEVICES RATED LESS THAN 125% OF THE TRANSFORMERS FULL LOAD CURRENT, PROTECT PRIMARY AND UNGROUNDED- SECONDARY CONDUCTORS.
- YES NO N/A RADIATION REQUIREMENTS
- \_\_\_\_ NON-IONIZING RADIATION (RF, MICROWAVES, UV, MAGNETIC FIELDS, ETC) HAVE (A) APPROPRIATE FCC CERTIFICATION FOR RF GENERATORS, (B) BEEN INSPECTED AND REGISTERED BY THE EHS & S RADIATION SAFETY OFFICER RSO, (C) A YELLOW PHILIPS RADIATION LABEL ON THE GENERATOR, AND (D) A HIGH VOLTAGE LABEL WHERE NECESSARY.
- \_\_\_\_ IONIZING RADIATION GENERATING EQUIPMENT HAS BEEN (A) REGISTERED WITH PHILIPS RSO, (B) INSPECTED BY THE RSO IN THE COMPANY OF THE EQUIPMENT ENGINEER OR REP. AND (C) AFFIXED WITH A RADIATION HAZARD REGISTRATION LABEL.
- YES NO N/A MECHANICAL REQUIREMENTS
- \_\_\_\_ DOORS, SKINS, SHIELDS, COVERS, PANELS, ETC ARE IN A PLACE, CLOSED, AND SECURED BY SCREW OR KEY, OR INTERLOCKED.
- \_\_\_\_ GUARDS OR SHIELDS ARE IN PLACE TO CONTAIN POTENTIAL FLYING MATERIAL

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- ☐ ☐ ☐ BELTS, GEARS, SPROCKETS, DRIVES AND FANS ARE GUARDED AND LABELED AS PINCH OR CRUSH HAZARDS.  
☐ ☐ ☐ GUARDS AND SHIELDS ARE SIZED PROPERLY FOR PROTECTION AND HAVE NO SHARP EDGES.  
☐ ☐ ☐ EXPOSED HOLES IN THE FLOOR AROUND PLUMBING OR FIXTURES ARE COVERED IF THEIR DIAMETER IS GREATER THAN 1 INCH.  
☐ ☐ ☐ SLIDING UNITS (DRAWERS, GATES, AND OTHER SLIDING CHASSIS) HAVE STOPS TO PREVENT DISENGAGEMENT.  
☐ ☐ ☐ PARTS (DRAWERS, GATES, ETC) ARE MECHANICALLY STABLE WHEN AT MAXIMUM EXTENSION FOR SERVICING.  
☐ ☐ ☐ HYDRAULIC AND PNEUMATIC EQUIPMENT (CHECK VALVES, BLEEDER PATHS, QUICK DUMP VALVES, ETC) ARE FAILSAFE.  
☐ ☐ ☐ INTERLOCKS ARE HARDWARE CONTROLLED (MATS, DOORS, LIGHT CURTAINS, ETC) HAVE BEEN TESTED, AND FUNCTION PROPERLY.  
☐ ☐ ☐ HAND-HELD COMPRESSED AIR/NITROGEN BLOW-OFF GUNS DO NOT EXCEED 30 PSI AND HAVE A SELF-REGULATING PRESSURE RELIEF NOZZLE.
- YES NO N/A ROBOTIC REQUIREMENTS (ROBOTS WHICH MAY POSE A HAZARD TO BODY PARTS)
- ☐ ☐ ☐ A PHYSICAL BARRIER ENCLOSES THE ROBOT WORK ENVELOPE.  
☐ ☐ ☐ THE ROBOT TEACH-PENDANT STOP= SWITCH HAS BEEN TESTED AND FUNCTIONS PROPERLY.  
☐ ☐ ☐ AN EMO IS PRESENT ON THE CONTROL PANEL OUTSIDE THE ROBOT WORK ENVELOPE AND / OR ONE IS PRESENT INSIDE THE WORK ENVELOPE.  
☐ ☐ ☐ ALL MOTION STOPS WHEN THE EMO AND ROBOT EMS (MUST BE A COLOR OTHER THAN RED) IS ACTIVATED.  
☐ ☐ ☐ LARGE ROBOT \_\_\_ IS FULLY ENCLOSED, OR \_\_\_ HAS A MIN OF 28" SEPERATION FROM AND ROPED OR PAINTED VISUAL BARRIER.  
☐ ☐ ☐ ROBOT ENCLOSURE \_\_\_ IS INTERLOCKED, \_\_\_ HAS PRESENCE-SENSING DEVICE, OR \_\_\_ REQUIRES A TOOL TO GAIN ACCESS.  
☐ ☐ ☐ LARGE ROBOT HAS AWARENESS DEVICE WITH AUDIBLE AND VISUAL SIGNS OF AN APPROACHING OR PRESENT ROBOTIC HAZARD.
- YES NO N/A CHEMICAL AND GAS REQUIREMENTS
- ☐ ☐ ☐ CHEMICAL AND GAS SUPPLY AND DRAIN PIPING ARE LABELED AS TO THEIR CONTENTS AND FLOW DIRECTION.  
☐ ☐ ☐ PROTECTIVE APPAREL IS AVAILABLE IN THE AREA FOR WORKING WITH HAZARDOUS MATERIALS (FACE SHIELD, SAFETY GLASSES, GLOVES, APRON)  
☐ ☐ ☐ OPERATING PRESSURES ARE INDICATED ON THE EQUIPMENT FOR AIR, H2 N2 ETC.  
☐ ☐ ☐ PERSONNEL ARE PROTECTED FROM GAS OR FLUID DISCHARGE (PRESSURE RELIEF VALVES, VENT VALVES, ETC)  
☐ ☐ ☐ CHEMICAL AND GAS PIPING HAS BEEN SURVEYED FOR LEAKS.  
☐ ☐ ☐ ZERO THE PHOTOCELLS(S) TO ENSURE THE ASSOCIATED INTERLOCKS ARE FUNCTIONING PROPERLY AND VERIFY THE HIGH AND LOW SET POINTS.
- YES NO N/A QUARTERLY ALARM CHECK
- ☐ ☐ ☐ OVERFILL- UNDERFILL  
☐ ☐ ☐ N2 PRESSURE HIGH- LOW  
☐ ☐ ☐ N2 PURGE  
☐ ☐ ☐ H2 PRESSURE HIGH LOW  
☐ ☐ ☐ LEAK DETECTOR ALARM  
☐ ☐ ☐ H2 FLOW  
☐ ☐ ☐ H2O TEMPERATURE HIGH LOW  
☐ ☐ ☐ H2O FLOW  
☐ ☐ ☐ OVER TEMPERATURE - UNDER TEMPERATURE  
☐ ☐ ☐ BURN-OFF FAILURE  
☐ ☐ ☐ FORMING GAS PRESSURE HIGH LOW  
☐ ☐ ☐ AIR PRESSURE HIGH LOW  
☐ ☐ ☐ ARGON PRESSURE HIGH LOW  
☐ ☐ ☐ EXHAUST VENTILATION ALARMS  
☐ ☐ ☐ FLAME OR GAS CURTAIN FAIL  
☐ ☐ ☐ SOLVENT ALARM (EQUIPMENT)  
☐ ☐ ☐ SMOKE ALARM SENSOR (EQUIPMENT)  
☐ ☐ ☐ GAS, VAPOR OR FUME DETECTOR  
☐ ☐ ☐ HIGH REFLECTED R F POWER ALARM  
☐ ☐ ☐ AIR FLOW SWITCH/INDICATOR  
☐ ☐ ☐ OXYGEN PRESSURE HIGH LOW

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_____	TOXIC GAS ALARM
_____	PHOTOHELIC (S) VERIFY SET POINTS
_____	EQUIPMENT VACUUM SWITCH/SENSOR (TOXIC GASES)
_____	CONVEYOR OR DRIVE ALARM
_____	INDICATOR LIGHTS ON FRONT AND BACK OF EQUIPMENT

CORRECTIVE ACTION (WORK ORDER NUMBER AND COMPLETION DATE)

**Completion Information:****Due Count/Meter**

Date: <input type="text"/>	Supervisor: <input type="text"/>	Time On: <input type="text"/>	Current Count: <input type="text"/>	0
Shift: <input type="text"/>	Down Time: <input type="text"/>	Time Off: <input type="text"/>	Current Meter: <input type="text"/>	0