



## HAECO – LCQ- FL

Revised 6/21/18 by CH

### Reporting Information:

- When: 8:00am Monday's Only
- Where: 102 SE Academic Ave, Lake City FL 32025 at Guard Shack
- Who: Stephanie Durrance, Strom Aviation Site Manager
- **MUST BE CLEAN SHAVEN FOR RESPIRATORY FIT TEST**
- Comprehension Exam for new contractors will happen immediately on the 1<sup>st</sup> day of arrival. Contractor must pass 100% of the exam to move forward with employment.
- HAECO will put all new contractors thru orientation/training on the first day of work.
- **\*\*All positions must be cleared to wear a respirator prior to hitting the floor\*\***

### Each arriving contractor **MUST** bring with them following:

- **Two forms of ID:** Valid driver's license/ID Card, Social Security Card, Birth Certificate, Passport or Permanent Resident.
- Copy of A&P License, FCC license if applicable.
- Any and all training records.
- **Contractor tool record- Please print and bring completed tool record on first day. Tools must be etched with first letter of last name and last four digits of SS# on all tools.**
- Uniform policy: Contractors are required to wear their contract company t-shirt and appropriate pants or shorts. Example of inappropriate pants/shorts would include camouflage, strings hanging, plaid, etc.

### Employment Verification Information:

- **Haeco requires a complete five year past employment history verification with no gaps. All non-aviation/unemployment has to be verified as well. Failure to complete employment verification within 30 days will end the contract.**

### Contact Numbers:

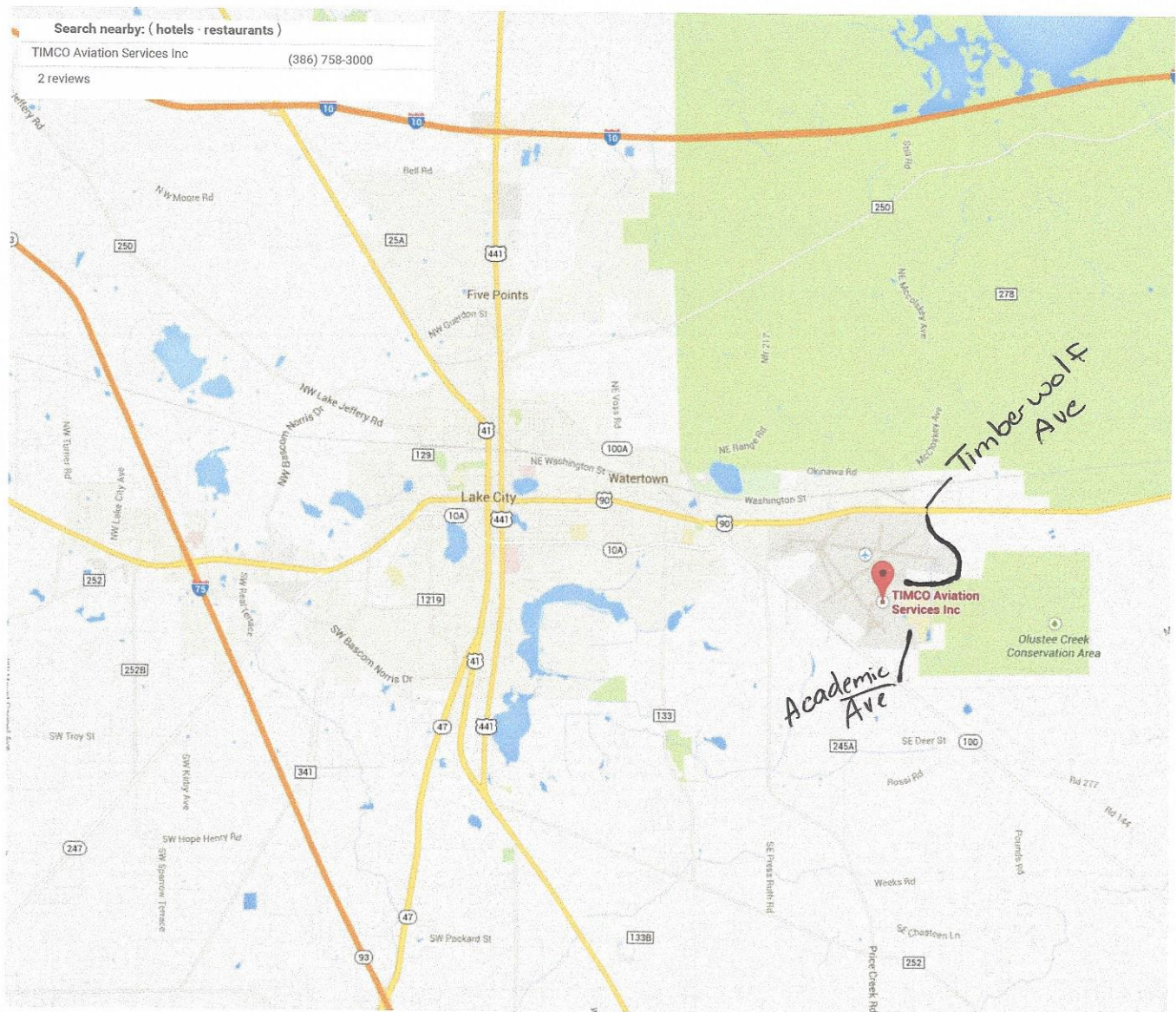
- **Haeco Sick Line-** 386-755-1449: When calling out leave your full name, employee badge number, supervisor's name and reason for absence. Must be done at least one hour before shift.
- Strom Site Manager Office Number: 386-758-3000 x 370. Cell number 386-243-1642
- Strom Aviation Corporate Office: 1-800-743-8988

### Accident Reports:

- If employee is involved in a work related on-site accident, always report the accident to an immediately to supervisor and site manager. Seek medical attention if needed. If unable to reach site manager during normal working hours contact Holly Judd at 952-466-8631. An accident report must be filled out ASAP.

### Random Drug Test:

- If employee is selected for a random drug or alcohol test they must proceed to the given test facility IMMEDIATELY upon notification. Employee be will provided test facility address and phone number for directions. Upon completion of the drug and/or alcohol test, employee must fax the chain of custody form and/or alcohol test results to Melissa at 952-466-8717 and call to confirm receipt at 952-466-8617 before leaving the test facility.



102 SE Academic Ave, Lake City FL 32025



**From Terry Grimes, Corporate Director of Safety for HAECO: Respiratory Protection to Keep YOU Safe-\*\*\*\*\***

There are many chemicals and compounds that we use in the Aviation world that if not handled properly, can be extremely hazardous to your health. This is why Respiratory Protection is so important to all of us. **The OSHA Standard and HAECO policy is very clear when it comes to facial hair. Simply put, NO Facial hair may come into contact with the sealing surface of a negative pressure respirator.**

If it does, OSHA will Not Permit the negative pressure air purifying respirator to be worn, this includes the N-95 “Dust Masks” we provide. **There are No exceptions to this rule.** If anyone wishes to retain facial hair that comes into contact with the respirator sealing surface we have an alternate procedure that entails the use of a Powered Air Purifying Respirator, (PAPR). This consists of a Tyvek hood with a battery pack and filter unit worn around the waist and connected to the hood via a breathing tube. This unit will force purified air into the hood causing “Positive Pressure” which will keep contaminants from entering the hood while you breathe. These units are very expensive to purchase and maintain as the batteries and filters are shelf life limited.

If anyone has a concern as to whether or not your facial hair comes into contact with the sealing surface of your respirator, a simple test can be performed. Take common petroleum jelly (Vaseline) and apply it to the area of your respirator that comes into contact with your face, put the respirator on as you would for conducting a fit test, then take it off. Now simply look in the mirror and any facial hair that has Vaseline on it, **MUST** be removed, or you have the option of entering the PAPR program. (See Reba for details). The requirements for respirator use are that you must report to work **EVERY** day, in such condition as to be able to Safely and Legally wear your respirator, not just be clean shaven on the day that you receive your Annual “Fit Test”. The new OSHA Standard for CrVI also known as Hexavalent Chromium has been recently revised to reduce exposure from 52 micrograms (previous limit) to below 5 micrograms per cubic meter of air per day, and our Respiratory Protection policy is a key component to keeping you Safe. CrVI is in the primer we use, (sanding and grinding on the primer can release amounts beyond the acceptable limits) it is also contained in some of the welding rods used, and can also be released when grinding/sanding/ machining Stainless Steel. It is also contained in other products as defined by the material MSDS. A negative pressure respirator equipped with yellow OV/AG cartridges and pre-filters, or purple HEPA cartridges can be worn to prevent over-exposure as well as the N-95 Dust masks. Please refer to MSDS’s which are now available on line via our new MSDS access system.

I \_\_\_\_\_, acknowledge that I have read and understand the respiratory requirements for all HAECO facilities.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## HAECO RESPIRATORY PROGRAM OVERVIEW

HAECO Team Supervisors and below in the following departments are required to be in the respiratory protection program; structures mechanics, A&P mechanics, composites mechanics, welders, machinists, painters, avionics technicians, inspectors, fabrication mechanics, interiors mechanics, backshop mechanics, GSE mechanics, facilities mechanics and associated contractors.

### Respiratory Protection Devices

					
<b>N95 Dusk Mask 3M 8210</b>	<b>Half Face 3M 6100, 6200 or 6300</b>	<b>Full Face 3M 7800</b>	<b>N95 Cartridge 3M 5N11</b>	<b>Organic / Acid Vapor Cartridge 3M 6003</b>	<b>P-100 Prefilter 3M2091</b>

### Respiratory Protection is required for the following activities

Activity	Specifications	Respirator Type	Cartridges	Affected Employees
Sanding of CR+6 Coated Materials on Downdraft Table		Minimum N-95 dust mask or	N-95 cartridge	Including clean-up of dust
		Half face negative pressure with		
Other sanding of CR+6 coated materials	Must utilize Clayton HEPA vacuum filters	Minimum N-95 dust mask or		Employee in immediate area, including clean-up of dust
		Half face negative pressure		
Cutting / Grinding of floorboards	Must be done on downdraft table			
General Grinding, Sanding, Bead Blasting	In a non-enclosed sand or bead blaster	Minimum N-95 dusk mask	N-95 cartridge	Employee in immediate area
		Half face negative pressure		
Welding		Minimum N-95 dust mask	N-95 cartridge	Employee in immediate area
		Half face negative pressure		
Cadmium Plating		Half face negative pressure	Organic vapor / acid cartridge with P-100 prefilter	Employee in 10 ft
Dry Machining of Cadmium plated parts	No controls to minimize airborne particles	Minimum Half or Full Face negative pressure	P-100 cartridges	Employee in 10 ft
		Full Face powered air purifying respirator with hood assembly	HEPA filters	Employee in 10 ft
No dry machining of beryllium plated parts				

Spraying (CR+6 materials)		Minimum full face negative pressure	N-95 cartridges	
		Full face powered air purifying respirator	Org vapor / acid gas / HEPA	
Painting	Surface > square ft	Full face with supplied air	Organic vapor / acid cartridge	Employee within 60 ft
Painting	Surface < 5 square ft	Half face	Organic vapor / acid cartridge	Employee within 30 ft
Methylene Chloride Stripping	Small areas	Half face	Organic vapor / acid cartridge	Employee in immediate area
Dinitrol Application		Half face	Organic vapor / acid cartridge	Employee in immediate area
Fuel Tank Work	Per Haeco Confined Space Entry Program			

## HAECO RESPIRATORY PROGRAM OVERVIEW

The respiratory protection program has been established to prevent the inhalation of harmful airborne substances and, in the case of supplied air, oxygen deficient atmospheres. If there are situations where an employee is wearing a respirator other than the activities listed above please contact EHS so HAECO can determine the right level of respiratory protection.

In all cases respirator users should follow the listed practices:

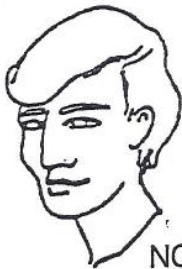
1. Before each use inspect the respirator for cracks especially at the thin edges of the face piece for small splits/cracks or, "wavy" areas. Also check the small round bladders on the inside of the face piece, where the inlet holes are. These thin membranes can develop the same type defect after a long period of time or, heavy use. If you have a Powered air purifying respirator check look for splits tears or cracks in the hood or face shield. If you find any defect, return the respirator to Tooling and show them the problem. They will swap it out for a new one.
2. Make sure there is no facial hair interfering with the seal of the mask and the face.
3. Anytime it is not being used, it should be in your zip-loc bag, zipped shut, to keep it clean.
4. Clean the face piece/mask after every use, with the wipes provided.
5. Change all your filters after every 8 hours of use. Keep an index card or memo pad in your zip-loc bag. On it, record your time of use, using marks or numbers, whatever is easiest for you. When you get to the 8 hours of use limit, draw a line through your marks/numbers, go to Tooling and replace all of your filters.
6. Place your old filters in the Satellite Accumulation drum for Paint Debris in your work area/line.

NOTE\*\* Powered Air Purifying Respirators (PAPR's) are respirators that are used by individuals who have chosen to retain facial hair beyond OSHA allowances for negative pressure respirator use. Once an individual enters into the PAPR program, they are not allowed to use any other type of respirator, to include full face, half face or particulate filtering face pieces (dust masks) in the performance of their duties. If you are in the PAPR program and wish to use any other type of respirator, you **MUST** set up an appointment with the Medical/Safety department to be issued a new Respiratory Certification card (SF -0013), which clearly lists the only type of respirator( s) you are **legally** qualified to use. Those in the PAPR program may check out the battery blower pack/filter assemblies from the tool crib simply by showing their certification card to the tool crib attendant.

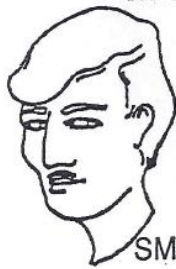
## FACIAL HAIR

The sketches below are examples of acceptable facial hair. In no instances may there be facial hair where the respirator seals to the face.

### MOUSTACHES



NONE



SMALL



MEDIUM



LARGE

### BEARDS



SMALL  
VANDYKE



LARGE  
VANDYKE

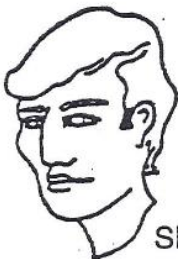


FULL  
SHORT

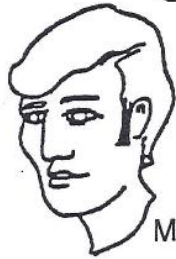


FULL  
LONG

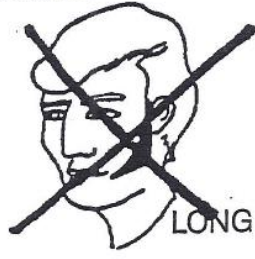
### SIDEBURNS



SHORT

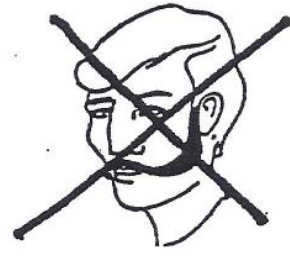


MEDIUM



LONG

### PRINCE ALBERT



### **3.TOOLBOX INSPECTION**

#### **A. Human Resources**

- (1) Give Toolbox Inspection Criteria letter to all new hire and contract employees for their signature at orientation.**
- (2) For new hires, forward original signed letter to HR for inclusion in new hires personnel file. For contract employees, forward the contractors' original signed letter to Contract Coordinator to be filed in contractors personnel file.**

**NOTE: All new hires' and incoming contractors' toolboxes are required to be processed into HAECO facility through Hangar 3, Monday to Friday between 0700 and 1630.**

#### **B. STORES**

- (1) Ensure all toolboxes are inspected and inventoried using Employee Tool Record (Form HR-0090) for new hires. For contract employees use the Contractor Tool Record (Form PL-0028)**
- (2) Place Toolbox Inspection sticker (Form QA-0053) on the toolbox.**
  - (a) Toolbox sticker identifies the owner of the toolbox, badge number and history of inspection dates.**

#### **C. Mechanic**

- (1) Send completed Form HR-0090 to Human Resources or Form PL-0028 to the Contract Coordinator to be filed in personnel file.**
- (2) Once toolbox is on HAECO property, it is the AMT's responsibility to ensure all toolbox items are within the guidelines outlined in the Toolbox Inspection Criteria letter signed on the first day of employment and this section of the manual.**

#### **D. Lead**

- (1) Inspect crew toolboxes monthly.**
- (2) Toolboxes are inspected for untraceable hardware, out of date shelf life items or repair data, out of calibration or uncalibrated tools, flammable items and aircraft parts (including hardware removed from aircraft). No sexually explicit pictures or other materials considered to be offensive are allowed.**

#### **E. Project Manager**

- (1) Verify toolbox inspection during audits.**



## TOOLBOX INSPECTION CRITERIA

Your toolbox can be inspected at any given time while it is on HAECO property. You will complete a toolbox inventory with the Tool Record Form provided to you by HAECO. Upon completion, direct employees will forward their forms to Human Resources and contractor will forward forms to their contract coordinator.

The following items are NOT allowed in your toolbox:

- Consumable materials (ex: acetone and sealant)
- Unidentified/untraceable aircraft parts and hardware (includes hi-locks, bolts, screws, nuts and other miscellaneous fasteners)
- Uncontrolled or out of date aircraft equipment
- Personal precision measurement equipment that has not been calibrated by the company and does not have a current calibration sticker (ex: dial gauges, calipers, etc.)
- Personally owned cable tensiometers
- Offensive materials
- Personal razor knives
- Metal putty knives, de-sealing tools or metal scrapers

Your name must be clearly labeled on your toolbox.

Your signature below acknowledges that you have read and understand the content.

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**Employee Signature**

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**Employee Number**

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**Employee Name (Print)**



## MASTER AIRCRAFT MECHANIC TOOL LIST REQUIREMENTS

- \* 1/4" drive 12 point socket set: 5/32" through 9/16" shallow  
5/32" through 9/16" deep
- \* 3/8" drive 12 point socket set: 3/8" through 7/8" shallow  
3/8" through 7/8" deep
- \* 1/2" drive 12 point socket set: 1/2" through 1 5/16" shallow/deep
- \* 1 each 1/2" drive breaker bar
- \* 1 each tool box and lock
- \* 1 set combination wrenches - 5/32" through 1 1/8"
- \* 1 each box wrench - 3/8" x 7/16"
- \* 1 each box wrench - 1/2" x 9/16"
- \* 1 each box wrench - 5/8" x 11/16"
- \* 1 each box wrench - 3/4" x 7/8"
- \* 1 set open end wrenches - 1/4" x 1 1/8"
- \* 3 each screw drivers, common tip - various blade sizes
- \* 2 each screw drivers - Phillips #2 and #3
- \* 1 each magnetic screw driver (for various tips)
- \* 1 each 1/4" drive ratchet
- \* 1 each 3/8" drive ratchet
- \* 1 each 1/2" drive ratchet
- \* 1/4" drive extensions - 4", 6"
- \* 3/8" drive extensions - 4", 6"
- \* 1/2" drive extensions - 4", 6", 12"
- \* 1 each ballpen hammer - 10 or 12 ounce
- \* 1 each plastic tip or rubber tip hammer
- \* 1 each slip jaw pliers - 10"
- \* 1 each needle nose pliers - 6"
- \* 1 each standard pliers - 6"
- \* 1 each side cutters - 6"
- \* 1 each duck bill pliers - 6"
- \* 1 each speed handle - 12" x 3/8" drive
- \* 1 each Apex adapter - 3/8" drive (hex)
- \* 1 each flashlight, explosion proof
- \* 1 each hacksaw
- \* 1 each 12" adjustable wrench
- \* 1 each inspection mirror
- \* 1 each set Allen wrenches
- \* 1 each punch and chisel set

## **Master Aircraft Mechanic Tool Requirements**

- 1 each safety wire pliers
- 1 each Ford wrench
- 1 each awl
- 1 each 6" steel rule
- 1 each 12' tape measure
- 1 each off set common screw driver
- 1 each Phillips off set ( #2 and #3)
- 1 each cotter pin puller - 8" long
- 1 each magnetic pick-up tool - 24" to 26" extension
- 1 each snap ring pliers (internal)
- 1 each snap ring pliers (external)
- 1 each vise grips - 1 5/8" jaw capacity
- 1 each straight cut shears
- 1 each file set
- 1 each pry bar - 16" long
- 1 set miniature combination wrenches (ignition)

**The above listed tools are required to perform work as a master aircraft mechanic. Those marked by an asterisk (\*) are the minimum required when reporting for work on your first day. The remaining tools are required within 90 days. Failure to have the minimum tools required will prevent you from reporting to work.**

**Date:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_

## AVIONICS MECHANIC TOOL REQUIREMENTS

- ❖ 1/4" drive 12 point socket set: 5/32" through 9/16" shallow  
5/32" through 9/16" deep
  
- ❖ 1 each tool box and lock
- ❖ 1 set combination wrenches – 5/32" through 5/8"
- ❖ 1 each box wrench – 3/8" x 7/16"
- ❖ 1 each box wrench – 1/2" x 9/16"
- ❖ 1 each open end wrench – 1/4" x 5/16"
- ❖ 1 each open end wrench – 3/8" x 7/16"
- ❖ 1 each open end wrench – 1/2" x 9/16"
- ❖ 3 each screw drivers - common
- ❖ 2 each screw drivers – Phillips #1 and #2
- ❖ 1 each magnetic screw driver (for various tips )
- ❖ 1 each 1/4" drive ratchet
- ❖ 1 each slip jaw pliers - 10"
- ❖ 1 each needle nose pliers – 6"
- ❖ 1 each standard pliers – 6"
- ❖ 1 each side cutters – 4" or 6"
- ❖ 1 each duck bill pliers – 6"
- ❖ 1 each flashlight, explosion proof
- ❖ 1 set miniature combination wrenches (ignition wrench set)
- 1 each set Allen wrenches
- 1 each apex adapter (hex) 3/8" drive
- 1 each 10" adjustable wrench
- 1 each inspection mirror
- 1 each 6" steel rule
- 1 each off set common screw driver
- 1 each Phillips off set screw driver (#1 and #2)
- 1 set nut drivers 1/4" through 7/16"
- 1/4" drive, 2" extension bar
- 1/4" drive, 4" extension bar
- hex wrench set
- multispline key set
- 1/4" breaker bar

**The above listed tools are required to perform work as an interior mechanic. Those marked by an asterisk (\*) are the minimum required when reporting for work on your first day.**

## METAL BOND/COMPOSITES TOOL LIST REQUIREMENTS

- ❖ 1 each 1/4" drive ratchet
- ❖ 1/4" drive 12 point socket set: 3/16" through 1/2" shallow  
3/16" through 1/2" deep
- ❖ 1 each 3/8" drive ratchet
- ❖ 3/8" drive 12 point socket set: 3/16" through 3/4" shallow  
3/16" through 3/4" deep
- ❖ 1 each 90 degree threaded drill
- ❖ 1 each 90 degree die grinder
- ❖ 1 each roll-a-way tool box and lock
- ❖ 1 each pneumatic drill 3/8" chuck with key
- ❖ 1 each 3x rivet gun
- ❖ 3/32", 1/8", 5/32", 3/16", 1/4", and flush rivet sets
- ❖ assortment of bucking bars
- ❖ 1 each dial calipers
- ❖ 1 each 6" scale calibrated in hundredths
- ❖ 1 each 12' measuring tape
- ❖ 1 set combination wrenches – 3/16" through 3/4"
- ❖ 1 each magnetic ratcheting screwdriver (various tips)
- ❖ 1/4" drive extensions – 4", 6"
- ❖ 3/8" drive extensions – 4", 6"
- ❖ assortment of files: cross-cut, vixen, bastard, etc.
- ❖ cleco pliers
- ❖ assorted clecos: #40, #30, #21, #10; 10 each
- ❖ vise grip pliers
- ❖ adjustable wrench
- ❖ diagonal cut pliers
- ❖ slip joint pliers
- ❖ needle nose pliers
- ❖ assortment of screwdrivers (Common & Phillips)
- ❖ scratch awl

**Composites mechanic minimum tool list**

- ❖ assortment of rivet punches
- ❖ dividers
- ❖ scissors
- ❖ aviation snips: left, right, and straight
- ❖ rivet cutters
- ❖ speed handle
- ❖ set of cold chisels
- ❖ hook scribe
- ❖ assortment of putty knives
- ❖ set of allen wrenches
- ❖ 4 each small C clamps
- ❖ 3 each countersink cages and assorted cutters
- ❖ combination square
- ❖ assortment of rotary files
- ❖ flash light (vapor proof)
- ❖ 1 each ballpeen hammer - 10 or 12 ounce
- ❖ 1 each plastic tip or rubber tip hammer

**The above listed tools are required to work as a composite mechanic. Those marked by an asterisk (\*) are the minimum required when reporting for work on your first day.**

## GENERAL AIRCRAFT MECHANIC MINIMUM TOOL REQUIREMENTS

1/2" drive 12 point socket set: 1/2" through 1 1/4" (shallow and deep)  
1 set of Allen Wrenches  
1 each 1/2" drive ratchet  
1 each 1/4", 1/2", 3/8" drive extensions  
1 each plastic or rubber tip hammer  
1 each Apex adapter (hex)  
2 each punches – 5/32" and 1/4"  
1 each safety wire pliers  
1 each Ford wrench  
1 each 6" steel rule  
1 each 12' tape measure  
1 each off set common screwdriver  
1 each Phillips off set  
1 each cotter pin puller  
1 set feeler gauges  
File - flat and round  
1/4" drive 12 point socket set: 5/32" through 9/16" shallow and deep  
3/8" drive 12 point socket set: 3/8" through 7/8" shallow and deep  
1 tool box and lock  
1 set combination wrenches – 5/32" through 1 1/8"  
Open end wrenches (1/4" x 5/16") 3/8" x 7/16") (1/2" x 9/16")  
3 each slotted screw drivers  
2 each Phillips screw drivers - #2 and #3  
1 each 1/4" ratchet  
1 each 3/8" ratchet  
1 each ball peen hammer – 10 or 12 ounce  
1 each channel lock pliers – 10" or 12"  
1 each needle nose pliers – 6"  
1 each standard pliers – 6"  
1 each side cutters – 6"  
1 each duck bill pliers – 6"  
1 each speed handle – 3/8" or 1/4" drive  
1 each flashlight, explosion proof  
1 each 12" adjustable wrench

**The above listed tools are the minimum required the first day of work at any TIMCO facility.**



## INTERIOR MECHANIC TOOL LIST REQUIREMENTS

- ❖ 1/4" drive 12 point socket set: 5/32" through 9/16" shallow  
5/32" through 9/16" deep
- ❖ 3/8" drive 12 point socket set: 3/8" through 7/8" shallow  
3/8" through 7/8" deep
- ❖
- ❖ 1 each tool box and lock
- ❖ 1 set combination wrenches – 5/32" through 5/8"
- ❖ 1 each box wrench – 3/8" x 7/16"
- ❖ 1 each box wrench – 1/2" x 9/16"
- ❖ 1 each box wrench – 5/8" x 11/16"
- ❖ 1 each box wrench – 3/8" x 7/8"
- ❖ 1 set open end wrenches – 1/4" x 1 1/8"
- ❖ 3 each screw drivers, common tip – various blade sizes
- ❖ 2 each screw drivers – Phillips #2 and #3
- ❖ 1 each magnetic screw driver (for various tips )
- ❖ 1 each 1/4" drive ratchet
- ❖ 1 each 3/8" drive ratchet
- ❖ 1/4" drive extensions – 4", 6"
- ❖ 3/8" drive extensions – 4", 6"
- ❖ 1 each ballpeen hammer – 10 or 12 ounce
- ❖ 1 each plastic tip or rubber tip hammer
- ❖ 1 each slip jaw pliers – 10"
- ❖ 1 each needle nose pliers – 6"
- ❖ 1 each standard pliers – 6"
- ❖ 1 each side cutters – 6"
- ❖ 1 each duck bill pliers – 6"
- ❖ 1 each speed handle – 12" x 3/8" drive
- ❖ 1 each Apex adapter – 3/8" drive (hex)
- ❖ 1 each flashlight, explosion proof
- ❖ 1 each hacksaw
- ❖ 1 each 12" adjustable wrench
- ❖ 1 each inspection mirror
- ❖ 1 each set Allen wrenches
- ❖ 1 each punch and chisel set
- ❖ 1 each safety wire pliers
- ❖ 1 each Ford wrench
- ❖ 1 each awl
- ❖ 1 each 6" steel rule
- ❖ 1 each 12' tape measure
- ❖ 1 each off set common screw driver
- ❖ 1 each Phillips off set (#2 and #3)

**Page 2**  
**Interior Mechanic**  
**Tool Requirements**

- 1 each cotter pin puller – 8” long
- 1 each magnetic pick-up tool – 24” to 26” extension
- 1 each snap ring pliers (internal)
- 1 each snap ring pliers (external)
- 1 each vise grips – 1 5/8” jaw capacity
- 1 each straight cut shears
- 1 each file set
- 1 each pry bar – 16” long
- 1 set miniature combination wrenches (ignition)

**The above listed tools are required to perform work as an interior mechanic. Those marked by an asterisk (\*) are the minimum required when reporting for work on your first day.**

## **MACHINISTS TOOL REQUIREMENTS**

**The following items are required to start employment in the TIMCO Machine Shop:**

- Tool Box and Lock
- 90 Degree Die Grinder (DOTCO or Similar Brand)
- 12' Tape Measure
- Scribe
- Ball Peen Hammer (16 oz)
- Set of files (Bastard, Mill, etc)
- Wrenches (Open-end and box-end ¼ - 7/8)
- 6" Scale
- 0-1" Micrometer
- 1"-2" Micrometer
- 6" Dial Calipers
- Dial Indicator(0-1" Travel)
- Dial Indicator (.0005-.030 Travel)
- Magnetic Indicator Base
- Allen Wrench Sets (SAE and Metric)
- 60 Degree Cetering Gage
- Thread Tap Handle
- Flashlight
- Deburring Tool
- Machinist Square (2" or Larger)

**The following items are required within 30 days of being hired in the TIMCO Machine Shop.**

- Pin Punches (3/32" to ¼")
- Center Punches
- Chisels (Small, Medium, Large)
- Common Pliers
- Vise Grips
- Needlenose Pliers
- Screwdrivers (Straight blade, various sizes and #2 & #3 Phillips)
- Thread Taps (Various Sizes 4-40 to ¼-28)
- Radius Gage Set (1/64" to ½")
- Dividers (4" + 6")
- Edge Finder
- Hole Gage Set (.125 to .500)
- Drill Indexes (1-60, A-Z, 1/64 to ½)

- Hacksaw
- Brass hammer
- Centerdrills (#1 - #6)
- Countersinks (90+100 Degree)
- Lathe Tool Bits
- Protractor (0-180 Degree)
- Air Blow Gun (OSHA Approved)
- Parallels (10 Piece Set ½ to 1 5/8) Optional

**Failure to have the above-required tools within the prescribed time requirements could result in disciplinary action up to and including termination.**

# STRUCTURES MINIMUM TOOL LIST

## REQUIREMENT DAY 1

Cleco Pliers

Spring Clecos: 10 each of 3/32, 1/8, 5/32, 3/16

Aviation Snips: Right, Left, Straight

Punches: 3/32", 1/8", 5/32", 3/16", 1/4"

Center Punch

2 Ball Peen Hammers: 12 and 20 oz.

Set of Files: Mill Bastard, Round, Taper, Four-in-Hand or equivalent

Pliers: Common, Channel Locks, Needle Nose, Vise Grips

Diagonal Cutters

Wrenches: Open and Box End 1/4", 5/16", 11/32", 3/8", 7/16", 1/2" & 9/16"

1 set of 1/4" Ratchets and Sockets, 6 and 12 pt. 1/4" – 9/16"

12' Tape Measure

6" Scale

12" Scale

C Clamps: 4 each at 1", 2 each at 6"

Screw Drivers: Flat and Phillips

Dividers (bow compass type, drawing instrument)

Awl

Combination Square

Inspection mirror

Flash light

Adjustable Wrench

Rubber/Plastic mallet

Speed handle: 3/8"

1 Set Allen Wrenches

1 Roll-A-Way Tool Box

3/8" Chuck Drill

90 Degree Die Grinder

## TOOLS REQUIRED WITHIN 90 DAYS

Straight Die Grinder

Rivet Gun: 4X

1 Set Bucking Bars

Rivet Sets: 3/32", 1/8", 5/32", 3/16" and flat set

1 Countersink Cage std. (micro stop) for countersink cutters