

# **Chapter 20**

## **STANDARD PRACTICES - AIRFRAME**

FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

Found Aircraft Canada  
Maintenance Program FAC2-M200

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FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

Found Aircraft Canada  
Maintenance Program FAC2-M200

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FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

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Maintenance Program FAC2-M200

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## **20 STANDARD PRACTICES - AIRFRAME**

### **20-00 GENERAL**

All flight control turnbuckles and cable terminals are lock-wired, or use turnbuckle clip type locking devices. Reference AC43.13-1B & 2A, paragraph 7-179 through 7-184.

Due to the number of commercial products available on the market specific products will not be identified. The care and upkeep of an aircraft must be done with regards to immediate concerns and also long term concerns. There is no benefit to using a cleaner, which removes dirt very well but causes corrosion.

FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

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## **20-10 METAL FINISHING**

All metals used in the aircraft receive some manner of finishing, during manufacture, ranging from chemical finishing to surface coatings such as paint.

### **20-10-01 Aluminum**

All clad aluminum parts on the aircraft receive a conversion coating. Aluminum fittings are anodized. In addition to this all interior aluminum parts receive one coat of epoxy primer. All exterior aluminum parts receive a minimum one coat of epoxy primer, and paint as determined by each operator.

### **20-10-02 Steel**

All steel parts on the aircraft receive some manner of finish. Individual callout may be for Cadmium plating, Electroless nickel plating, Epoxy primer, or a combination of the above.

FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

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## **20-20 CORROSION INHIBITING COMPOUNDS**

All forward fuselage steel frames are inhibited with Boiled Linseed Oil.

Do not re-inhibit the forward fuselage steel frame with any other product than specified.

All Aircraft - Dependant upon operating environment and operator usage, additional corrosion protection may be desired. Any compound which meets MIL-C-16173 Grade 2 can be used for this purpose. Any area which receives additional protection must be thoroughly cleaned and dried before application.

FBA-2C1, FBA-2C2, FBA-2C3  
FBA-2C4, FBA-2C3T, FBA-2C4T

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## **20-30 SEALANTS**

### **20-30-01 Fuel Tank**

The fuel tank area is protected with a conversion coating. All faying surfaces are mated with a MIL-S-8802 Class C sealant. All fillets are sealed with a MIL-S-8802 Type II Class A sealant. All sealant is top coated with a MIL-S-8802 Class B sealant. There is no paint applied to the fuel tank area. All threaded parts connected to the fuel tank system are sealed with a fuel compatible thread sealer.

### **20-30-02 Firewall**

Firewall sealant meets MIL-S-38249, Type 1, and must be used whenever a firewall seal is removed or found to be deteriorated.

### **20-30-03 Windows**

Windows are seated and sealed with Bostik 920 (Do **NOT** use Bostik 920FS).

### **20-30-04 Other**

All other structures may be sealed with:

Fay seal	PRC 890C - spatula application
	PRC 890A - brush application
Fillet seal & seam seal	PRC 1440

FBA-2C1, FBA-2C2, FBA-2C3  
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## **20-40 CLEANING**

Regardless of what is being cleaned care should be taken to use only soft cloth or chamois. Never use a dirty cloth to clean as there may be abrasive material trapped in the cloth.

### **20-40-01**

All interior and exterior aluminum surfaces of the aircraft may be cleaned with clean water to remove dirt, and carbon tetrachloride or other non-alkaline solvent to remove grease. Household type detergents can be used **but must be rinsed thoroughly**. All cleaning solutions must be sponged or toweled out as required to prevent areas of standing water.

### **20-40-02**

Painted surfaces should only be cleaned with water during the curing period, which may last up to 90 days. Check with the paint manufacturer for specific cure times. After paint has cured any good quality automotive wax may be applied to preserve the paint. Ensure that the wax is compatible to the type of paint on the aircraft.

### **20-40-03**

Windows may be cleaned with clean water and mild detergent solution. Use the palm of the hand to dislodge any accumulations of dirt. Never use a cloth or brush to scrub dirt accumulations as there may be abrasives which will mar the window.

### **WARNING**

DO NOT USE GASOLINE, ALCOHOL, BENZENE, ACETONE, KEYTONE, CARBON TETRACHLORIDE, FIRE EXTINGUISHER FLUIDS, DE-ICER FLUIDS, LACQUER THINNER OR GLASS WINDOW CLEANING SOLUTIONS ON ANY WINDOW AS THEY MAY SOFTEN AND/OR CRAZE THE WINDOW.

### **20-40-04**

Plastic parts may be cleaned with clean water and mild detergent solutions.

### **20-40-05**

Interior trim panels may be cleaned with clean water and mild detergent solutions. Take care not to use excessive amounts of water inside the aircraft and remove standing water when done.

**20-40-06**

The engine compartment may be washed down with a suitable solvent, then dried thoroughly. Never spray a hot engine with any flammable solvent as it may ignite and cause loss of the aircraft and serious personnel injury.

**20-40-07**

Propellers may be washed with clean water and a mild detergent solution. Do not use any caustic solutions to clean the prop. Do not use any abrasive tools to clean the prop.

**20-40-08**

Seat covering material may be dry cleaned a maximum of 10 times. After 10 dry cleanings the seat covers must have fire rating protection reapplied.



## **20-50 FASTENER IDENTIFICATION AND TORQUE DATA**

This section contains information on the identification of fasteners and torque data. The nuts, bolts, and washers used on the airplane are in accordance with Air Force Navy Specifications, Military Specifications, and National Aircraft Standards.

### **20-50-10 Maintenance Practices**

Bolts can be identified by the marking(s) located on the head of each bolt, see Figure 20-50-01. When securing a fastener, unless otherwise specified in the specific installation procedure, use the torque specifications in Table 20-50-01.

When torquing a self-locking nut, the nut should be run down on the threads of the bolt until the nut almost contacts the mating surface. The amount of torque required to run the nut down (friction drag torque) should be measured and added to the amount of torque specified for the fastener.

Due to the diminished friction torque, self locking nuts can be reused only if they meet or exceed the minimum prevailing torque values in Table 20-50-02

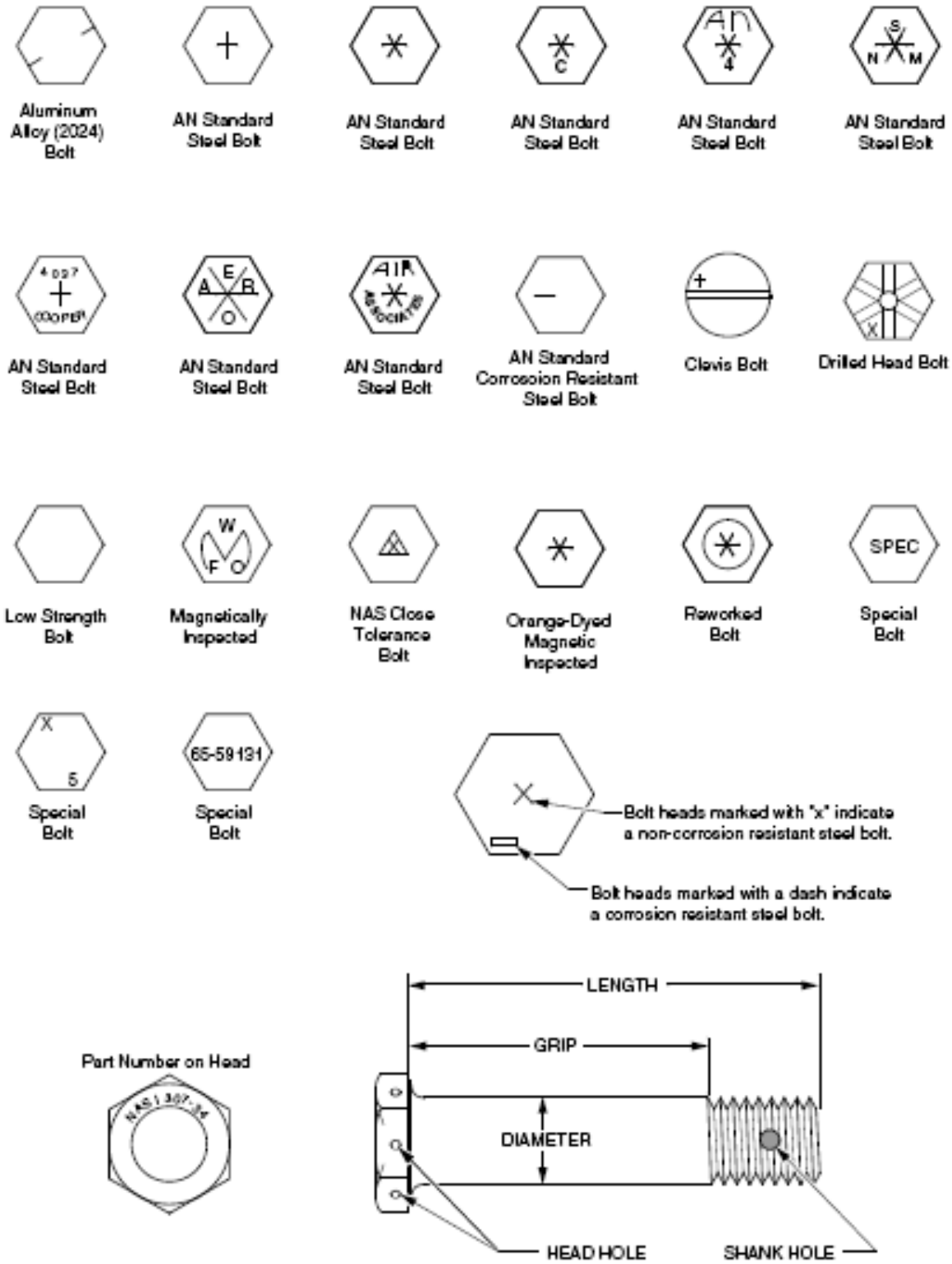


Figure 20-50-01 Bolt Identification

## 20-50-20 Standard Torque Values

Unless otherwise specified in the specific installation instructions, the following torque values apply to all bolts used on the aircraft.

CAUTION THE FOLLOWING TORQUE VALUES ARE DERIVED FROM OIL FREE CADMIUM PLATED THREADS.				
Thread Size	TORQUE LIMITS RECOMMENDED FOR INSTALLATION (BOLTS LOADED PRIMARILY IN SHEAR)		MAXIMUM ALLOWABLE TIGHTENING TORQUE LIMITS	
	Tension type nuts MS20365 and AN310 (40,000 psi in bolts)	Shear type nuts MS20364 and AN320 (24,000 psi in bolts)	Nuts MS20365 and AN310 (90,000 psi in bolts)	Nuts MS20364 and AN320 (54,000 psi in bolts)
<b>FINE THREAD SERIES</b>				
8-36	12-15	7-9	20	12
10-32	20-25	12-15	40	25
1/4-28	50-70	30-40	100	60
5/16-24	100-140	60-85	225	140
3/8-24	160-190	95-110	390	240
7/16-20	450-500	270-300	840	500
1/2-20	480-690	290-410	1100	660
9/16-18	800-1000	480-600	1600	960
5/8-18	1100-1300	600-780	2400	1400
3/4-16	2300-2500	1300-1500	5000	3000
7/8-14	2500-3000	1500-1800	7000	4200
1-14	3700-5500	2200-3300*	10,000	6000
1-1/8-12	5000-7000	3000-4200*	15,000	9000
1-1/4-12	9000-11,000	5400-6600*	25,000	15,000
<b>COARSE THREAD SERIES</b>				
8-32	12-15	7-9	20	12
10-24	20-25	12-15	35	21
1/4-20	40-50	25-30	75	45
5/16-18	80-90	48-55	160	100
3/8-16	160-185	95-100	275	170
7/16-14	235-255	140-155	475	280
1/2-13	400-480	240-290	880	520
9/16-12	500-700	300-420	1100	650
5/8-11	700-900	420-540	1500	900
3/4-10	1150-1600	700-950	2500	1500
7/8-9	2200-3000	1300-1800	4600	2700
The above torque values may be used for all cadmium-plated steel nuts of the fine or coarse thread series which have approximately equal number of threads and equal face bearing areas. * Estimated corresponding values.				

**Table 20-50-01 Standard Torque Values**

FINE THREAD SERIES	
THREAD SIZE	MINIMUM PREVAILING TORQUE
7/16 - 20	8 inch-pounds
1/2 - 20	10 inch-pounds
9/16 - 18	13 inch-pounds
5/8 - 18	18 inch-pounds
3/4 - 16	27 inch-pounds
7/8 - 14	40 inch-pounds
1 - 14	55 inch-pounds
1-1/8 - 12	73 inch-pounds
1-1/4 - 12	94 inch-pounds
COARSE THREAD SERIES	
THREAD SIZE	MINIMUM PREVAILING TORQUE
7/16 - 14	8 inch-pounds
1/2 - 13	10 inch-pounds
9/16 - 12	14 inch-pounds
5/8 - 11	20 inch-pounds
3/4 - 10	27 inch-pounds
7/8 - 9	40 inch-pounds
1 - 8	51 inch-pounds
1-1/8 - 8	68 inch-pounds
1-1/4 - 8	88 inch-pounds

**Table 20-50-02 Minimum Prevailing Torque Values for Reused Self-locking Nuts.**