

**INSPECTION – NLG / MLG – PALNUTS**

**1. PLANNING INFORMATION**

**A. EFFECTIVITY**

<b>Part A/B</b>	
<u>MODEL</u>	<u>S/N</u>
750XL (NZ)	Up to S/N 216, and S/N 220
750XL (CN)	8001 and 8002

<b>Part C</b>	
<u>MODEL</u>	<u>S/N</u>
750 (NZ)	Up to S/N 185 (excluding S/N 177).

**B. REASON**

To replace the Nose Landing Gear attachment fasteners, installing castellated nuts and locking pins, replacing the friction locking nuts previously installed.

To inspect the Main Landing Gear attachment bolts and installing Palnuts as required.

Issue 4 adds alternatives to the bolt P/N NAS6606D63 and NAS6606D68.

**C. DESCRIPTION**

Part A – Daily until Part B is completed. Inspect the NLG lower bolts and clamp for security. Replace nuts if found loose.

Part B – Procedures for replacement of locking nut and pal nut with a castellated nyloc locking nut and split pin in Nose Landing Gear.

Part C – Procedures for inspection and installation of Palnuts on the 3/8 bolts in the Main Landing Gear of the Short range wing and the 7/16 bolts of aircraft embodied with MOD PAC/XL/ 0451, 0509 and 0663).

**NOTE:** Part C is not applicable for Extended Range Wing aircraft (which were all fitted with Palnuts during manufacture).

- |                                     |  |
|-------------------------------------|--|
| <b>D. <u>COMPLIANCE</u></b>         | Part A: Daily until Part B is accomplished.<br>Part B/C: Within the next 165 flight hours. |
| <b>E. <u>APPROVAL</u></b>           | By delegated authority.  |
| <b>F. <u>TOOLING</u></b>            | N/A.   |
| <b>G. <u>WEIGHT AND BALANCE</u></b> | No change.   |
| <b>H. <u>REFERENCE</u></b>          | AMM Supplements PAC/XL/0389, 0451,<br>0509, 0663 and 750XL Maintenance<br>Manual.          |
| <b>I. <u>HOURS REQUIRED</u></b>     | Part A – 2 Min.<br>Part B – 1 Hour.<br>Part C – 4 Hours.                                   |
| <b>J. <u>WARRANTY COVER</u></b>     | Normal warranty conditions apply.  |

**2. PART A – INSPECTION INSTRUCTIONS**

**NOTE:** The initial inspection (Steps 1 to 4) should be performed by a qualified and approved LAME.

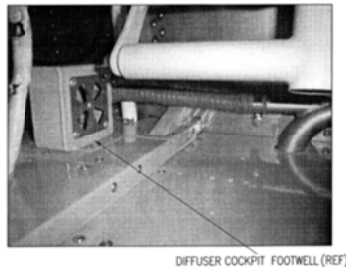
- 1) Inspect the lower attachment bolts on the nose landing gear.
- 2) Check for loose bolts and gaps between the clamp and firewall.
- 3) If the bolts or the clamp look or feel loose, you must proceed to Part B prior to operating the aircraft.
- 4) Upon first inspection, add torque stripe at bolt head checking daily for relative movement.

**NOTE:** Daily visual inspections (Step 5) may be performed by a qualified pilot.

- 5) Check daily if there is any misalignment on the stripe added in Step 4. If there is, you must proceed to Part B prior to operating the aircraft.

**3. PART B - ACCOMPLISHMENT INSTRUCTIONS (NOSE LANDING GEAR)**

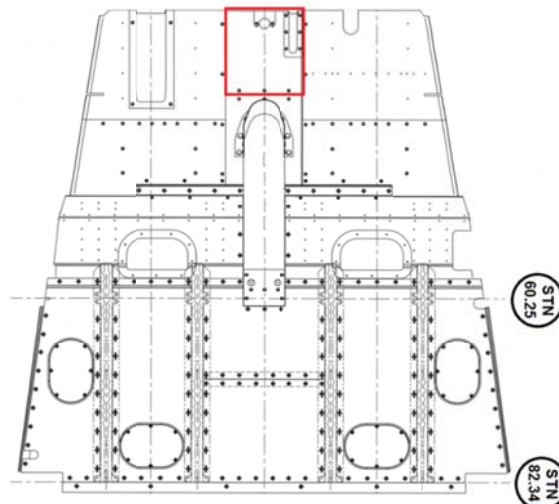
- 1) Raise the nose Landing Gear of the ground (or alternatively, depressurise the nose Landing Gear).
- 2) Remove LH or RH Cockpit Seats (Ref. 750XL MM, Section 25-10-00 or AMM Supplement PAC/XL/0389 - MCI Model 2023 Crew Seats).
- 3) Remove the Hose Clip from the Diffuser Cockpit Footwell in the Cover Panel Assembly - Centre, if PAC/XL/0182 – Bleed Air Cabin Heater is installed (See Figure 1).



DIFFUSER COCKPIT FOOTWELL (REF)

**FIGURE 1 COCKPIT FLOOR – DIFFUSER COCKPIT FOOTWELL (IF INSTALLED)**

- 4) Remove the Cover Panel Fwd of the Cover Panel Assembly - Centre P/N 11-16365-1 (See Figure 2).



**FIGURE 2 COCKPIT FLOOR (ONLY FOR REFERENCE)**

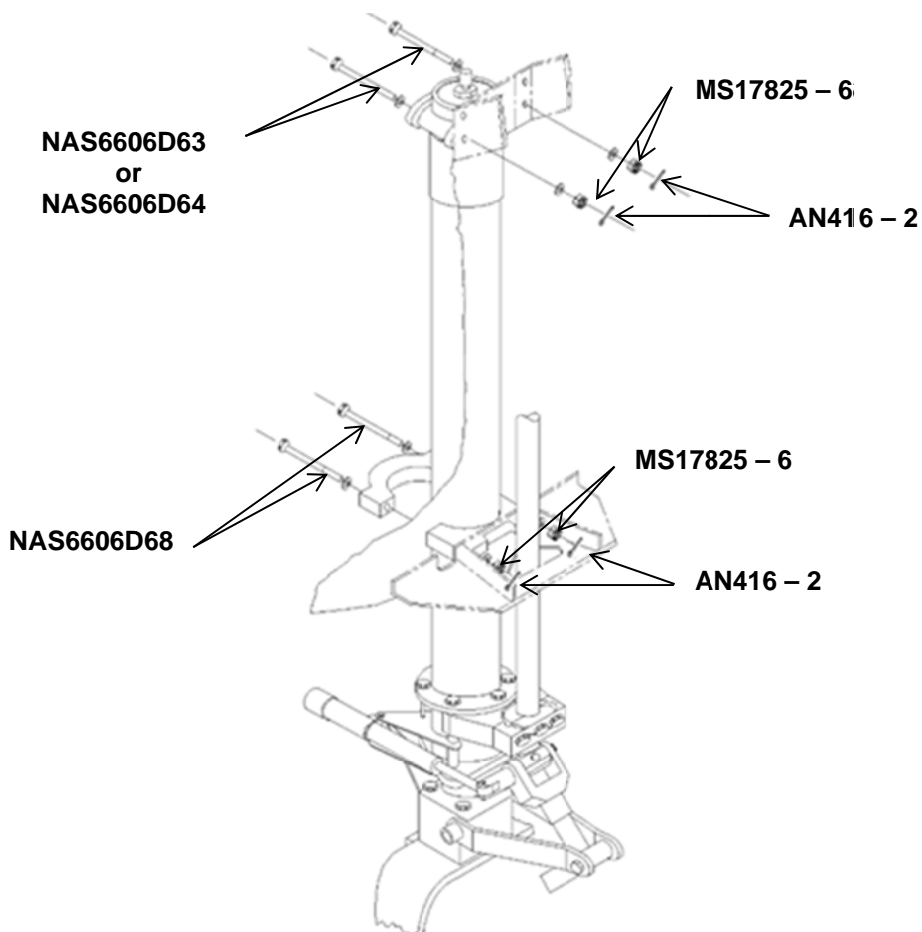
- 5) Remove the Upper Engine Cowl to get access to the upper attachment area of the Nose Landing Gear (Ref. 750XL MM, Chapter 71).
- 6) Replace existing hardware with the following:
  - Bolts – NAS6606D63 or alternate parts (refer to Section 6. Material List)
  - Nuts – MS17825 – 6 [Torque to 160-260 lb.in]
  - Spring Pin / Split Pin – AN416-2 or MS24665-283

**NOTE:** The Bolts P/N NAS6606D63 may be fabricated from P/N NAS6606-63 iaw PAL DWG BOL6606 (refer to the attached drawing).

**NOTE:** The Bolts P/N NAS6606D64 may be fabricated from P/N NAS6606-64 iaw PAL DWG BOL6606 (refer to the attached drawing). If using this bolt you must use an additional washer P/N AN960-616 directly behind the nut.

- 7) In the Lower Engine Cowl area, access the lower attachment bolts of the Nose landing gear.
- 8) Replace existing hardware with the following:
  - Bolts – NAS6606D68 or alternate parts (refer to Section 6. Material List)
  - Nuts – MS17825 – 6 [Torque to 160-260 lb.in]
  - Spring Pin / Split Pin – AN416-2 or MS24665-283

**NOTE:** The Bolts P/N NAS6606D68 may be fabricated from P/N NAS6606-68 iaw PAL DWG BOL6606 (refer to the attached drawing).



**FIGURE 3 NOSE LANDING GEAR – HARDWARE REPLACEMENT**

- 9) Reinstall the Upper Engine Cowl (Ref. 750XL Maintenance Manual, Chapter 71).
- 10) Reinstall the Hose Clip to the Diffuser Cockpit Footwell in the Cover Panel Assembly - Centre, if PAC/XL/0182 – Bleed Air Cabin Heater is installed (See Figure 1).
- 11) Reinstall LH or RH Cockpit Seats (Ref. 750 XL MM, Section 25-10-00 or AMM Supplement PAC/XL/0389 - MCI Model 2023 Crew Seats).
- 12) Check NLG Oleo pressure (Ref. 750XL MM, Section 12-70-00).
- 13) Carry out nose wheel shimmy check (Ref. 750XL MM, Section 32-50-00).

#### 4. **PART C - ACCOMPLISHMENT INSTRUCTIONS (MAIN LANDING GEAR)**

- 1) Remove the Leading Edge Protection Panels (LH / RH) (Ref. 750XL MM, Section 51-90-00).
- 2) Remove the Lower Inner Protection Panels (LH / RH) (Ref. 750XL MM, Section 51-90-00).



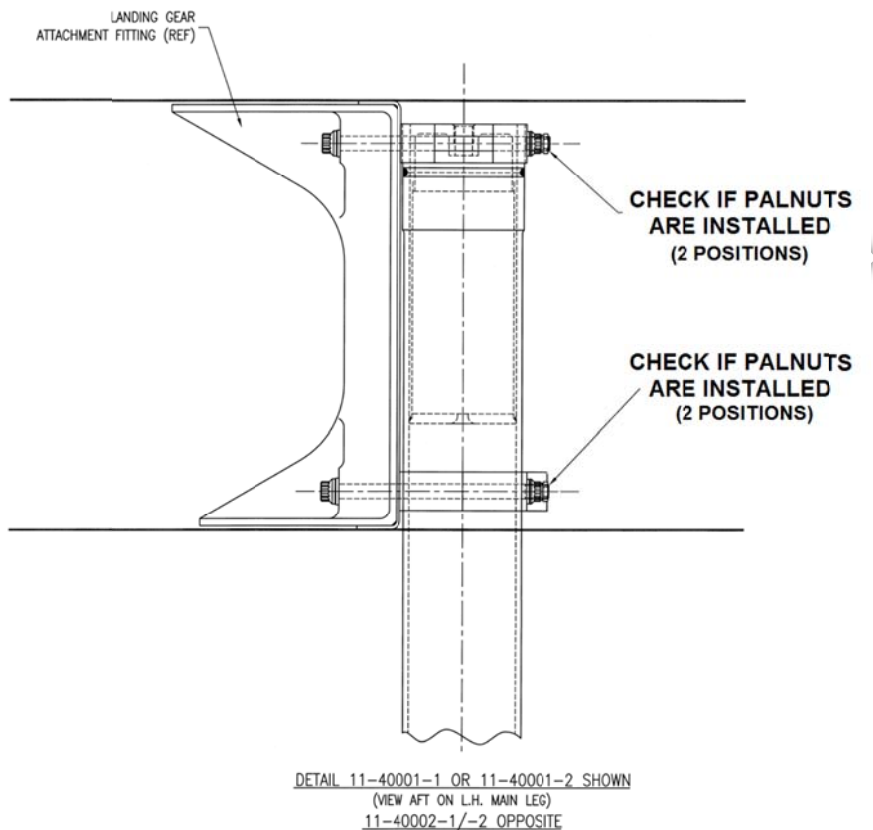
**FIGURE 4 LOWER WING SURFACE (SHORT RANGE WING)**

- 3) Remove the Inboard and Outboard Cover Panels (LH / RH) (See Figure 5) (Ref. 750XL MM, Section 32-10-00).



**FIGURE 5 LOWER WING SURFACE – COVER PANELS**

- 4) Inspect the Main Landing Gear attachment bolts (See Figure 6):
- If the Palnuts are installed in eight bolts locations (four on each MLG), no further action is required. Go to Step 8) and record compliance with this Service Bulletin Part B.
  - If the Palnuts are not installed in eight bolts locations (four on each MLG), go to Step 5).



**FIGURE 6 MAIN LANDING GEAR (SHORT RANGE WING AND AIRCRAFT WITH MODS 0451 / 0509 / 0663) - INSPECTION**

- 5) Check the torque of the Main Landing Gear upper attachment bolts (See Figures 7 and 8).

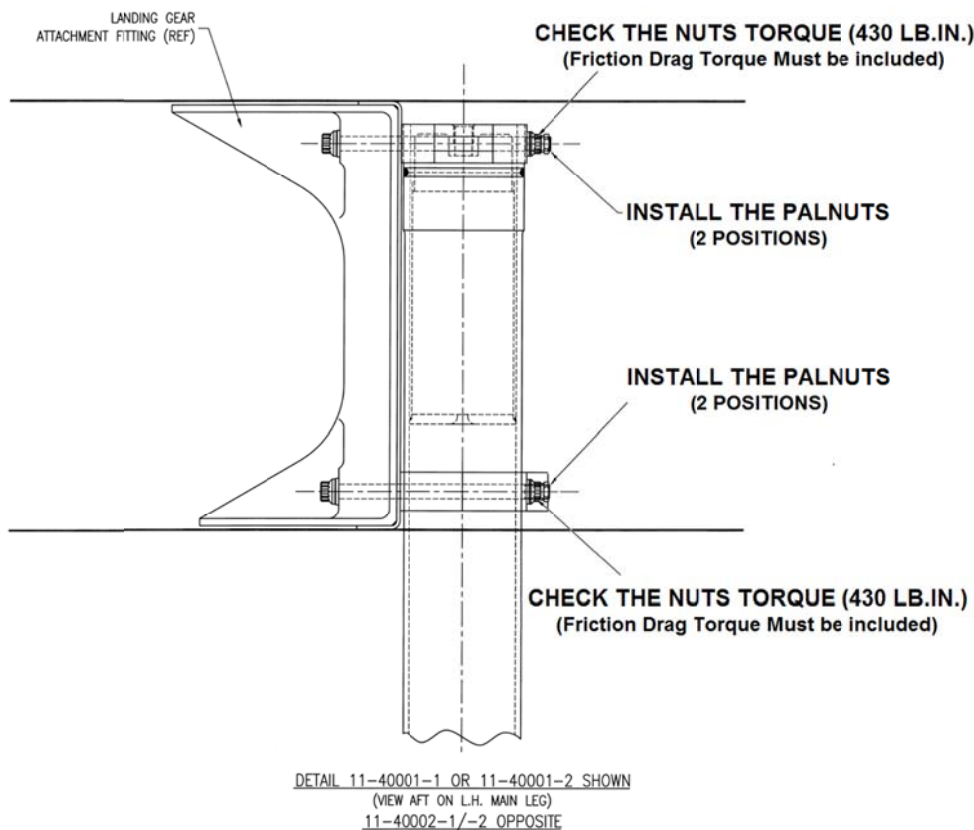
**NOTE 1:** For Short Range Wing Aircraft (3/8 bolt), the torque value should be 430 lb.in. (friction drag torque must be included). Torque the bolts again, if necessary.

**NOTE 2:** For MODs PAC/XL/0451, 0509 and 0663 (7/16 bolt), the torque value should be 500 lb.in. (friction drag torque must be included). Torque the bolts again, if necessary.

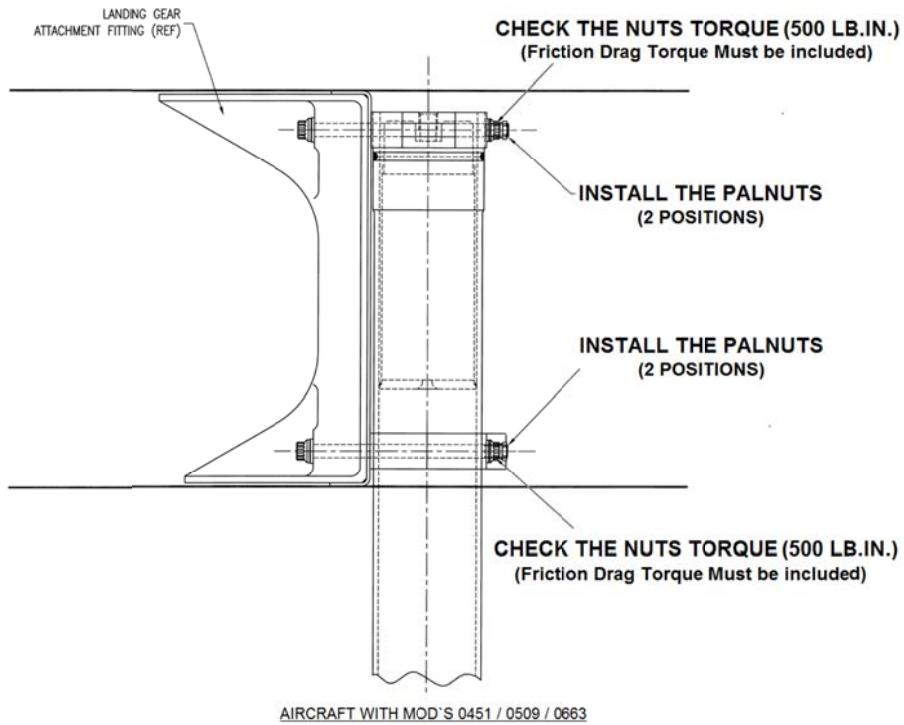
- 6) Install the Palnuts P/N MS27151-19 (for Short Range Wing Aircraft) or P/N MS27151-21 (for MOD`s 0451, 0509 and 0663) to the upper attachment bolts of the Main Landing Gear.

**NOTE:** Palnuts should be tightened securely but not excessively. Finger-tight plus ¼ turn or two flats.

- 7) Repeat Steps 5 and 6 for the lower attachment bolts of Main Landing Gear, checking the torque and installing the Palnuts, as applicable.
- 8) Reinstall the Inboard and Outboard Cover Panels (LH / RH) (See Figure 5) (Ref. 750XL MM, Section 32-10-00).
- 9) Reinstall the Lower Inner Protection Panels (LH / RH) (Ref. 750XL MM, Section 51-90-00).
- 10) Reinstall the Leading Edge Protection Panels (LH / RH) (Ref. 750XL MM, Section 51-90-00).



**FIGURE 7 MAIN LANDING GEAR (SHORT RANGE WING – TORQUE CHECK AND PALNUTS INSTALLATION)**



**FIGURE 8 MAIN LANDING GEAR (AIRCRAFT WITH MODS 0451 / 0509 / 0663) – TORQUE CHECK AND PALNUTS INSTALLATION**

**5. CERTIFICATION**

Record compliance with Part A, Part B and/or Part C of this bulletin in the Aircraft Log Book. Completion of Part B and Part C (if applicable) is terminating action to this Service Bulletin.

**6. MATERIAL REQUIRED**

**PART B - NOSE LANDING GEAR**

<u>Description</u>	<u>Part Number</u>	<u>Qty Required</u>
BOLT	NAS6606D63	2
	OR	
	NAS1306-63D	
	OR	
	PAL BOL6606D63	
	OR	
	NAS6606-63 (hole drilled iaw	
	PAL DWG BOL6606)	
	OR	
	NAS6606D64	
	OR	
	PAL BOL6606D64	
OR		
NAS6606-64 (hole drilled iaw		
PAL DWG BOL6606)		



BOLT	NAS6606D68 OR NAS1306-68D OR PAL BOL6606D68 OR NAS6606-68 (hole drilled iaw PAL DWG BOL6606)	2
NUT	MS17825 – 6	4
SPRING PIN OR SPLIT PIN	AN416-2 OR MS24665-283	4
WASHER **	AN960-616	2 (if applicable)

\*\* An additional washer P/N AN960-616 is installed only with the Bolts P/N NAS6606D64 or alternative bolts.

**PART C - MAIN LANDING GEAR**

<b><u>Description</u></b>	<b><u>Part Number</u></b>	<b><u>Qty Required</u></b>
PALNUT (SHORT RANGE WING AIRCRAFT)	MS27151-19	A/R (MAX. 8)
<b><u>OR</u></b>		
PALNUT (MODS 0451, 0509 AND 0663)	MS27151-21	A/R (MAX. 8)

**INTENTIONALLY LEFT BLANK**

NOTES:

- 1. COMPONENTS ON THIS DRAWING TO BE MADE IN ACCORDANCE WITH COMPANY APPROVED MANUFACTURING STANDARDS AND PROCEDURES.
- 2. MANUFACTURE FROM: NAS6603-xx THRU NAS6620-XX OR NAS6603-xxX THRU NAS6620-xxX.

- 7. MODIFIED BOLTS TO BE PROTECTED BY APPLICATION OF CRC 3-36 CORROSION INHIBITING COMPOUND OR EQUIVALENT CONFORMING TO MIL-C-81309E, APPLIED TO THE HEADS AND DRILLED HOLES.

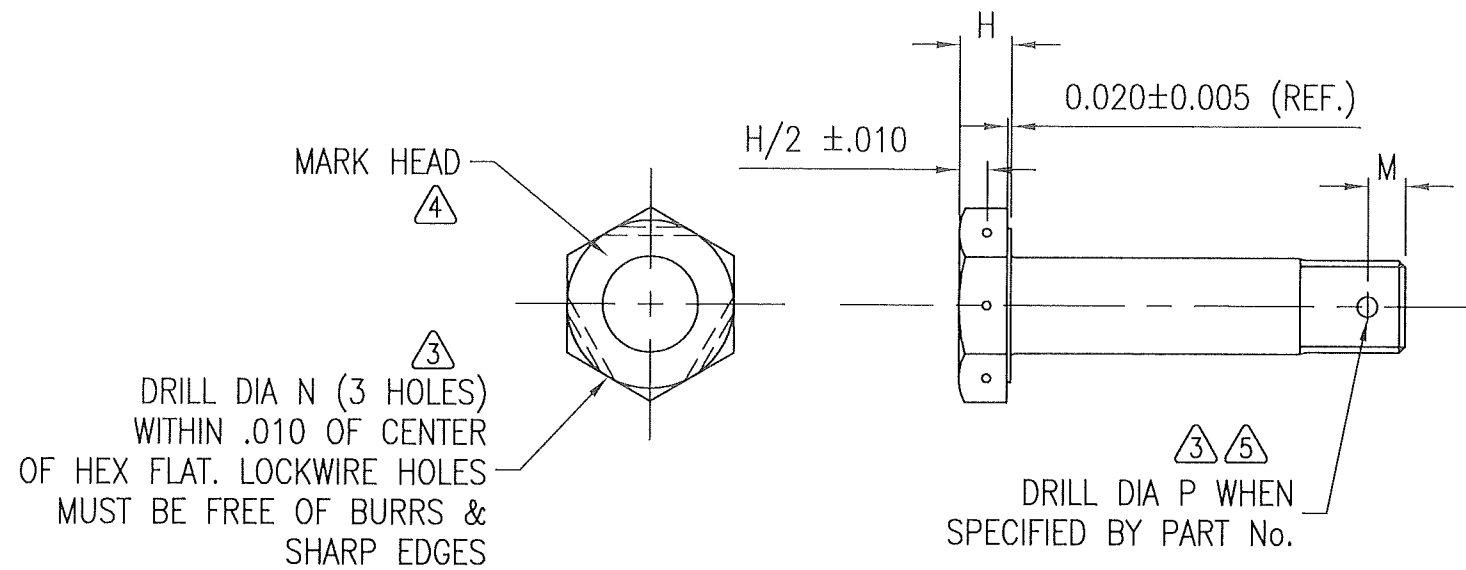
3 ALL DIMENSIONS TO CONFORM TO THE EQUIVALENT NAS SPECIFICATIONS. PROVIDED DIMENSIONS REF. ONLY

4 VIBRO ETCH OUT MANUFACTURER'S MARK AND MARK WITH PAL MARK WHERE INDICATED.

5 COTTER PIN HOLE CENTRELINE: WITHIN .010 AND NORMAL WITHIN 2" OF BOLT CENTRELINE.

6 "BOL" REPLACES "NAS" FOR THE DRILLED BOLT PART NUMBER. ADD "D" AFTER BASIC PART No. FOR DRILLED SHANK BOLTS. ADD "H" AFTER BASIC PART No. FOR DRILLED HEAD BOLTS.

Eg. WHERE DRILLED HEAD BOLT IS MANUFACTURED FROM NAS6603-xx BOLT THE NEW PART NUMBER IS BOL6603Hxx  
 Eg. WHERE DRILLED HEAD BOLT IS MANUFACTURED FROM NAS6603-xxX BOLT THE NEW PART NUMBER IS BOL6603HxxX  
 Eg. WHERE DRILLED SHANK BOLT IS MANUFACTURED FROM NAS6606-xx BOLT THE NEW PART NUMBER IS BOL6606Dxx  
 WHERE xx = GRIP DASH NUMBER.



NEW BASIC NUMBER	ORIGINAL BASIC NUMBER	H (REF.) <sup>+0.015</sup> / <sub>-.000</sub>	M ± 0.010	N DIA <sup>+0.010</sup> / <sub>-.000</sub>	P DIA <sup>+0.010</sup> / <sub>-.000</sub>
BOL6603	NAS6603	.110	.164	.046	.070
BOL6604	NAS6604	.125	.178	.046	.076
BOL6605	NAS6605	.156	.181	.070	.076
BOL6606	NAS6606	.188	.197	.070	.106
BOL6607	NAS6607	.219	.201	.070	.106
BOL6608	NAS6608	.250	.216	.070	.106
BOL6609	NAS6609	.281	.218	.070	.141
BOL6610	NAS6610	.312	.249	.070	.141
BOL6612	NAS6612	.375	.252	.070	.141
BOL6614	NAS6614	.438	.257	.070	.141
BOL6616	NAS6616	.500	.264	.070	.141
BOL6618	NAS6618	.562	.357	.070	.141
BOL6620	NAS6620	.625	.389	.070	.141

IF IN DOUBT ASK

ITEM	PART NUMBER	DESCRIPTION - SIZE - SPECIFICATION	NEXT ASSY
A	NC	ISSUE	UNLESS OTHERWISE SPECIFIED
A1	-	CHANGE No.	 THIRD ANGLE PROJECTION DIMENSIONS IN INCHES DIMENSIONS BEFORE PLATING BREAK SHARP CORNERS DEBURR
DETAILS FOR DRILLED SHANK BOLTS ADDED	FIRST PRODUCTION ISSUE	CHANGE	THIS DRAWING IS THE PROPERTY OF PACIFIC AEROSPACE LIMITED AND MAY NOT BE COPIED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED WITHOUT THE EXPRESS WRITTEN AUTHORITY OF PACIFIC AEROSPACE LIMITED. © 2014 FINISH NOTED    DRAWN G.JONES    20-08-14 WEIGHT -    CHECK R.J. BECK    22-08-14 SCALE N.T.S.    STRESS MFG. -    APPROVAL AvW    22-08-14
			TOLERANCES .XX ± .030 .XXX ± .010
			ANGLES ± 1/2°
			DRAWING NUMBER
GAJ	DRAWN	DESCRIPTION	DRAWING NUMBER
AvW	APPR'D	DRILLED NAS6603 THRU 6620 SERIES BOLTS	BOL6603 THRU 6620
19/12/18	22-08-14	DATE	SHEET 1 OF 1