

**CERTIFICAT D'APTITUDE PROFESSIONNELLE**  
**MECANICIEN CELLULES D'AERONEFS**

**DOSSIER**  
**TECHNIQUE**

CE DOSSIER EST A REMETTRE OBLIGATOIREMENT COMPLET AUX EXAMINATEURS  
A LA FIN DE L'EPREUVE.

**AUCUN DOCUMENT AUTORISE**

SESSION 2011

CODE : 500 254 30

EXAMEN : CERTIFICAT D'APTITUDE PROFESSIONNELLE

SPECIALITE : MECANICIEN CELLULES D'AERONEFS

EPREUVE EP2 : Démarche Qualité et Réglementation Aéronautique

# DOSSIER TECHNIQUE

## Procédure d'installation de la roue de l'avion

Customer: AIB Type: A319/A320/A321 Rev. Date: May 01/07	Manual: AMM Selected effectivity: ALL
32-41-11-400-006-B - Installation of the MLG Wheel (2649GM,2650GM,2651GM,2652GM)	

TASK 32-41-11-400-006-B  
Installation of the MLG Wheel (2649GM,2650GM,2651GM,2652GM)

**WARNING:** YOU MUST NOT PUT TOO MUCH GREASE ON THE AXLE SLEEVE. A VERY HOT BRAKE CAN CAUSE THE GREASE TO BURN AND CAUSE A FIRE.

**CAUTION:** MAKE SURE THAT THE ITEMS IN THE "FIXTURES, TOOLS, TEST AND SUPPORT EQUIPMENT" PARAGRAPH ARE APPLICABLE TO YOUR AIRCRAFT (THIS LIST IS NOT CUSTOMIZED). REFER TO THE APPLICABLE SUBTASKS.

1. Reason for the Job

Self Explanatory

2. Job Set-up Information

A. Fixtures, Tools, Test and Support Equipment

REFERENCE	QTY	DESIGNATION
No specific		standard wheel R & I dolly
No specific		Torque Wrench : range 0.00 to 1.20 m.daN (0.00 to 9.00 lbf.ft)
No specific		Torque Wrench : range 0.20 to 3.60 m.daN (2.00 to 26.00 lbf.ft)
No specific		Torque Wrench : range 0.70 to 10.00 m.daN (5.00 to 75.00 lbf.ft)
No specific		Torque Wrench : range 2.00 to 20.00 m.daN (15.00 to 150.00 lbf.ft)
No specific		Torque Wrench : range 6.00 to 36.00 m.daN (50.00 to 260.00 lbf.ft)
No specific		Torque Wrench : range 15.00 to 82.00 m.daN (120.00 to 600.00 lbf.ft)
H47682	1	ADAPTOR-MLG
MG174-04	1	DISASSEMBLY TOOL

B. Consumable Materials

REFERENCE	DESIGNATION
No specific	corrosion resistant steel lockwire dia 0.8 mm (0.03 in.)
04003	USA SAE AMS 2518 GRAPHITED PETROLATUM THREAD COMPOUND (Ref. 20-31-00)
04004	USA MIL-PRF-23827 TYPE I SYNTH. ESTER BASED GREASE HIGH PRESSURE (Ref. 20-31-00)
04022	USA MIL-PRF-81322 SYNTH. HYDROCARBON GREASE HIGH PRESSURE (Ref. 20-31-00)
04035	SYNTHETIC WHEEL BEARING GREASE (Ref. 20-31-00)
11002	USA MIL-PRF-680 DRY CLEANING SOLVENT (VAR SOL/WHITE SPIRIT) (Ref. 20-31-00)

C. Installation of the Wheel

- (1) Align the wheel (1) with the driving keys on the brake rotor and install the wheel.
- (2) Remove the PROTECTOR (5E92-0300).
- (3) Install the axle nut (7) on the axle and tighten it with the TORQUE ADAPTOR (460007230).
- (4) In the cockpit, set the PARK BRK control switch to OFF.
- (5) Turn the wheel in the direction of the axle nut rotation and TORQUE the axle nut (7) to between 32 and 39 m.daN (235.98 and 287.61 lbf.ft).
- (6) Prevent the rotation of the wheel and loosen the axle nut (7) to between 3.1 and 3.7 m.daN (22.86 and 27.28

lbf.ft).

(7) Turn the wheel in the direction of the axle nut rotation and TORQUE the axle nut (7) to between 15.9 and 19.5 m.daN (117.25 and 143.80 lbf.ft).

(8) Tighten the axle nut (7) until the holes in the nut are aligned with the holes in the axle.

(9) Install the bolts (8), the washers (6) and the nuts (5).

**NOTE:** Install the heads of the bolts (8) inside the axle.

(10) TORQUE the nuts (5) to between 0.4 and 0.45 m.daN (35.39 and 39.82 lbf.in).

(11) Install the new (IPC-CSN 32-11-13-01-200) cotter pins (4).

(12) Turn the wheel manually to make sure that it is installed correctly.

### D. Installation of the Fan

(1) Install the joint and the shroud.

(a) Install the joint (10) with the clamp (9).

**NOTE:** The locating pin (24) puts the joint (10) in the correct position. It locks the joint so that it cannot turn on the wheel (1).

(b) TORQUE the screw (21) to between 0.28 and 0.34 m.daN (24.77 and 30.08 lbf.in).

(c) Install the shroud (12) on the joint (10).

**NOTE:** Use the locating pins (11) on the joint (10) to put the shroud (12) in the correct position.

**NOTE:** All the edge of the shroud (12) must touch the wheel.

**NOTE:** The inflating valve must go through the hole (20).

(d) Install the screws (19).

(e) TORQUE the screws (19) to 0.25 m.daN (22.12 lbf.in).

(2) Install the fan.

Pre SIL 32 - 095

- Apply a thin layer of

**COMMON GREASE (Material No. 04-003)** on the threads of the impeller drive shaft and on the threads of the nut (18).

- Put the impeller (13) in position and engage the splines. Lock the impeller (13) with **DISASSEMBLY TOOL (MG174-04)**. Install the nut (18) and TORQUE to between 3.1 and 3.7 m.daN (22.86 and 27.28 lbf.ft).

- Safety the nut (18) with corrosion resistant steel lockwire dia 0.8 mm (0.03 in.).

- Make sure that the impeller (13) can turn easily.

Post SIL 32 - 095

- Apply a thin layer of

**COMMON GREASE (Material No. 04-003)** on the threads of the impeller drive shaft and on the threads of the nut (18).

- Put the impeller (13) in position and engage the splines. Lock the impeller (13) with **DISASSEMBLY TOOL (MG174-04)**.

- Install the washer (31) and the nut (18). TORQUE the nut (18) to 3.4 m.daN (25.07 lbf.ft).

- Safety the nut (18) with corrosion resistant steel lockwire dia 0.8 mm (0.03 in.).

- Make sure that the impeller (13) can turn easily.

(3) Install the debris guard.

(a) Apply a thin layer of **COMMON GREASE (Material No. 04-003)** to the screws (15).

(b) Install the debris guard (16). Make sure that you engage the splines (22) of the tachometer drive shaft in the splines of the bushing (17).

(c) Install the screws (15) and the washers (14).

(d) TORQUE the screws (15) to between 0.22 and 0.24 m.daN (19.46 and 21.23 lbf.in)

# DOSSIER TECHNIQUE

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 Type: A319/A320/A321  
 Rev. Date: May 01/07

Manual: AMM  
 Selected effectivity: ALL

32-41-11-400-006-B - Installation of the MLG Wheel  
 (2649GM,2650GM,2651GM,2652GM)

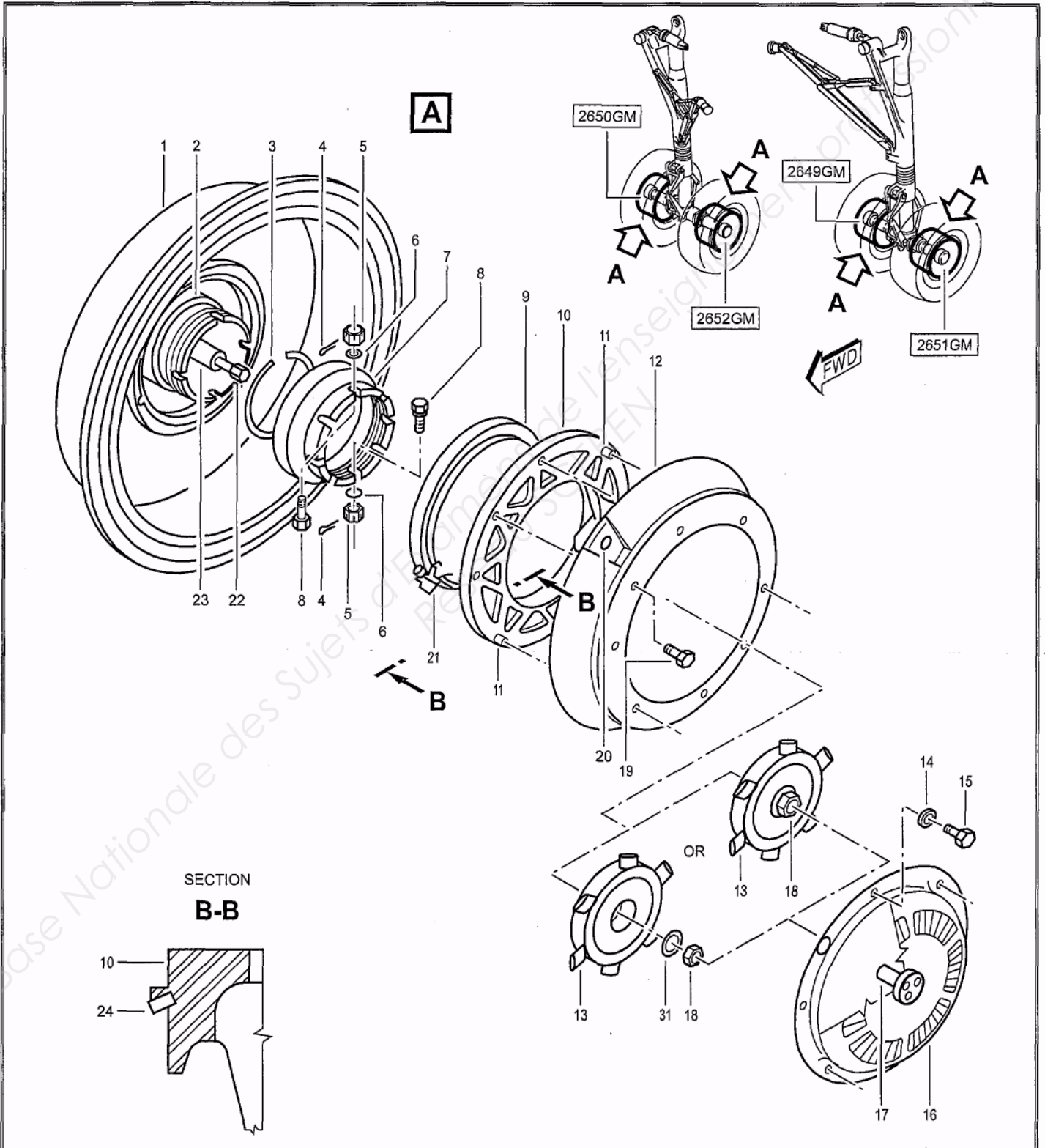


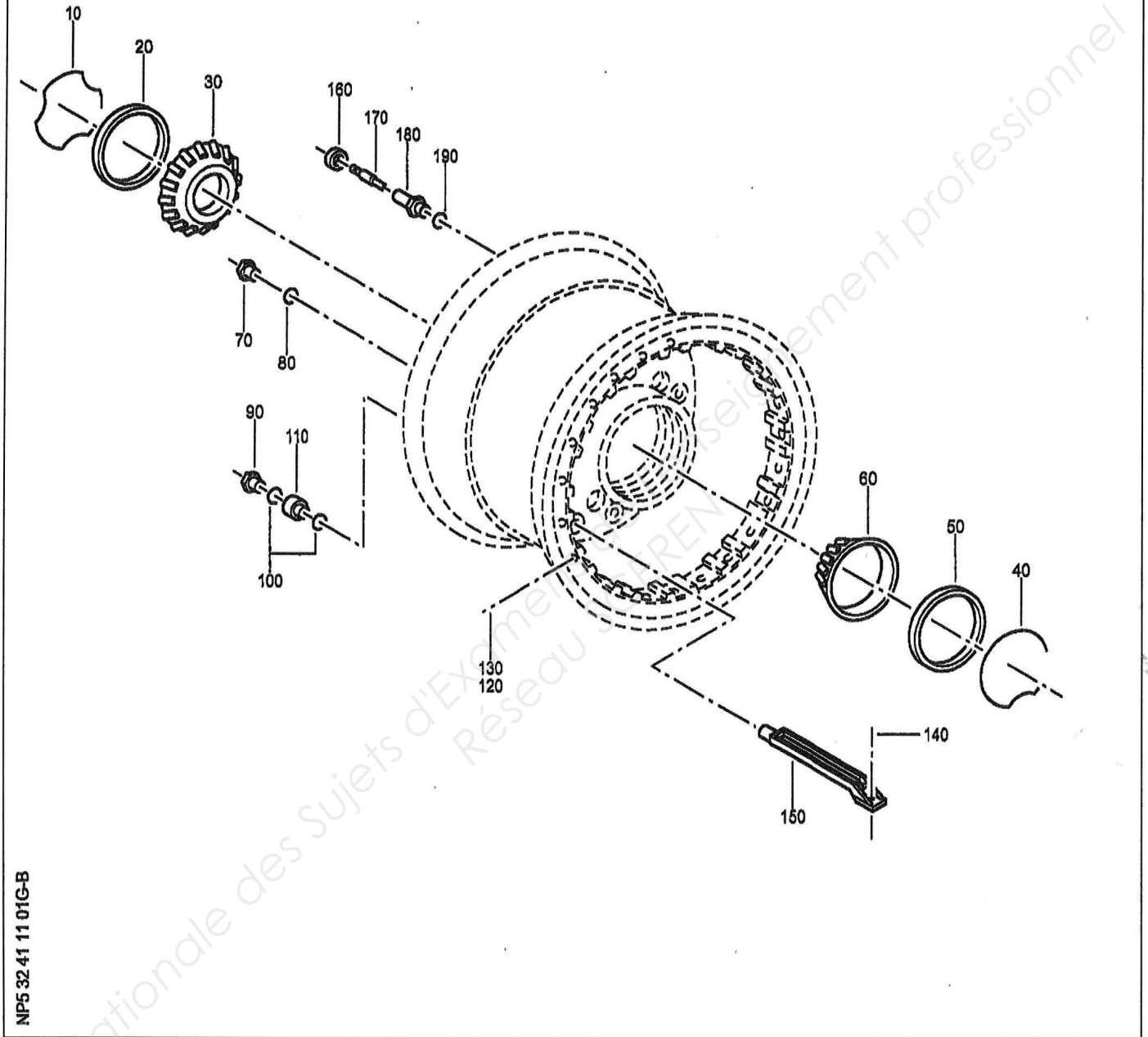
Figure 32-41-11-991-014 / SHEET 401A.1/1 - Main Gear Wheel  
 \*\* ON A/C 101-149, 151-156

## DOSSIER TECHNIQUE

### Extrait du manuel illustré du constructeur :

32-41-11-01G-WHEEL ASSY-MLG				
FIG - ITEM	PART NUMBER	NOMENCLATURE	FIN ACCESS/PANEL	UNIT PER ASSY
01G -001A	<u>5011529-3</u>	WHEEL ASSY-MLG FOR OPERATING DATA/LIMITS: <u>SEE 32-41-05-01F FOR NHA</u> <u>POST SB 32-1177</u> <u>PRE SB 32-1263</u>		REF
01G 010	<u>5011506</u>	.RING		001
01G 020	<u>50114504-1</u>	.SEAL		001
01G 030	<u>LM125748AV</u>	Attaching Parts .CONE BEARING ***		001
01G 040	<u>9535574</u>	.RING RETAINING		001
01G 050	<u>5011503</u>	.SEAL		001
01G 060	<u>48385</u>	Attaching Parts .CONE AND ROLLERS ***		001
01G 070	<u>5011498</u>	.PLUG		001
01G 080	<u>NAS1602-906</u>	.PACKING		001
01G 090	<u>AN814-5D</u>	.PLUG AND BLEEDER		001
01G 100	<u>NAS1602-905</u>	.PACKING		002
01G 110	<u>5008806</u>	.ADAPTER INLET		001
01G 120	<u>42FLW624</u>	.NUT SELF LOCKING		011
01G 130	<u>MS14177-6</u>	.WASHER		011
01G 140	<u>93877-6-9</u>	.BOLT DOUBLE HEXAGON		011
01G 150	<u>5011509-1</u>	Attaching Parts .KEY BEAM DISK DRIVE ***		011
01G 160	<u>VC9</u>	.CAP VALVE		011
01G 170	<u>C2</u>	.CORE, VALVE		001
01G 180	<u>TRJ781-02</u>	.STEM-VALVE		001
01G 190	<u>RG6</u>	.PACKING		001

Figure 01G (Sheet 1) / 32-41-11 WHEEL ASSY-MLG \*\*ONA/C 101-120, 151-156



NP5 32 41 11 01G-B