ON A/C ALL

Task 32-21-05-400-804-A01 Installation of the NLG Upper-Drag-Brace

1. General

A. The maintenance procedure that follows is for the installation of the nose landing gear (NLG) upper drag brace (written as the "drag brace" in this procedure). The drag brace is installed between the NLG wheel well structure and the shock strut assembly.

2. Job Set-Up Information

ON A/C ALL

A.

Tools and Equipment

DESIGNATION
Commercially Available Wrench - Torque, 0 to 75 lbf·in (0 to 8 N·m)
Commercially Available Grease Gun - Multi Heads
Commercially Available Strap Wrench

END ON A/C ALL

ON A/C ALL

B.

Consumable Materials

CONSUMABLE
04-010 Grease, Aeroshell #33
11-007 Methyl ethyl ketone (MEK)

END ON A/C ALL

ON A/C ALL

C.

Parts

NAME	REFERENCE
Drag brace	ON A/C 19001-19250 AIPC 32-21-05-01 END ON A/C 19001-19250 ON A/C 15001-15990 AIPC 32-21-05-01 END ON A/C 15001-15990 ON A/C 10001-10999 AIPC 32-21-05-01 END ON A/C 10001-10999

END ON A/C ALL

ON A/C ALL

D.

Reference Information

REFERENCE	DESIGNATION
ON A/C ALL	
TASK 07-11-01-586-801	Lowering of the Aircraft
END ON A/C ALL	
ON A/C ALL	
TASK 07-13-01-586-801	Lowering at the Nose Jacking Point
END ON A/C ALL	
ON A/C ALL	
TASK 32-30-00-710-801	Operational Test of the Landing-Gear Extension/Retraction System
END ON A/C ALL	
ON A/C ALL	
TASK 32-30-00-865-802	Nose Landing Gear Extension and Retraction
END ON A/C ALL	
ON A/C ALL	
TASK 53-12-32-400-801	Installation of the Flight Controls Access Panel (131AL/132AR)
END ON A/C ALL	

END ON A/C ALL

ON A/C ALL

E.

Standard Practices Information

REFERENCE	DESIGNATION
ON A/C ALL	
TASK 20-51-00-400-801	Installation of Cotter Pins
END ON A/C ALL	
ON A/C ALL	
TASK 51-26-00-110-801	Solvent Cleaning
END ON A/C ALL	
ON A/C ALL	
TASK 51-80-00-760-801	Electrical Bonding Test
END ON A/C ALL	

END ON A/C ALL

3. Procedure

ON A/C ALL

Refer to figure 412

A. Install the drag brace (1) as follows:

(1) Connect the upper end of the drag brace (1) as follows:

(a) With methyl ethyl ketone, clean the trunnion pins (24) and the drag brace (1).

(b) Apply a thin layer of the grease to the trunnion pins (24), the drag brace (1) and the trunnion bearings.

(c) Install the trunion pins (24) into the trunion bearings.

(d) Put the drag brace (1) in position between the trunnion bearings.

(e) Slide the trunnion pins (24) through the trunnion bearings and into the drag brace (1).
(f) Align the cross bolt holes in the drag brace (1) and the trunnion pins (24).
(g) With methyl ethyl ketone, clean the cross bolts (21) and the washers (19) and (20).
(h) Apply a thin layer of the grease to the cross bolts (21) and the washers (19) and (20).
(i) Align the brackets (22) and (23) over the cross bolt holes on the drag brace (1).
(j) On the right trunnion of the drag brace (1) install the cross bolt (21) and the bonding strap.
(k) On the left trunnion of the drag brace (1) install the cross bolt (21) and the washer (20).
(l) Install the washers (19) and the nuts (18).
Note: An additional washer can be added to make sure that you get a correct cotter pin alignment.
(m) Torque the nuts (18) from 30 to 40 lbf·in (3.39 to 4.52 N·m).
(n) Safety the nuts (18) with a new cotter pins (17).

(2) Install the caps (13) on the trunnion bearings as follows:
(a) Apply grease to the new packing (16).
(b) Install a new packing (16) on the trunnion bearing.
(c) Put the caps (13) in position.
(d) Install the washers (15) and the bolts (14).
(e) Torque the bolts (14) from 40 to 50 lbf·in (4.52 to 5.65 N·m).

(3) Connect the door mechanism link as follows:
(a) Apply a thin layer of the grease to the pin (12) and the washer (11).
(b) Put the door mechanism link in position.
(c) Install the pin (12), the washer (11), and the nut (10).
(d) Torque the nut (10) from 80 to 110 lbf·in (9.04 to 12.43 N·m).
(e) Safety the nut (10) with the a new cotter pin (9).

(4) Connect the lower end drag brace (1) to the apex hinge attachment as follows:
(a) With methyl ethyl ketone, clean the apex pin (8), the bolt (7), and the washer (9).
(b) Apply a thin layer of the grease to the apex pin (8), the bolt (7), and the washers (4) and (5).
(c) Put the lower end drag brace (1) in position with the apex hinge attachment.
(d) Install the drive arm (29) in position.
(e) Apply a thin layer of grease to the shank and the threads of the pins (26) and the faces of the washer (27).
(f) Install the pins (26), the washers (27) and the nut (28).
(g) Torque the nut from 10 to 12 lbf·in (1.13 to 1.35 N·m).
(h) Install the apex pin (8).
Note: Use the strap wrench until you can easily install the apex pin.
(i) Install the bolt (7), the drag strut cap (6), the washers (4) and (5) and the nut (3).
(j) Torque the nut (3) from 15 to 20 lbf·in (1.70 to 2.26 N·m).
(k) Safety the nut (3) with a new cotter pin (2).
(l) Remove the strap wrench.

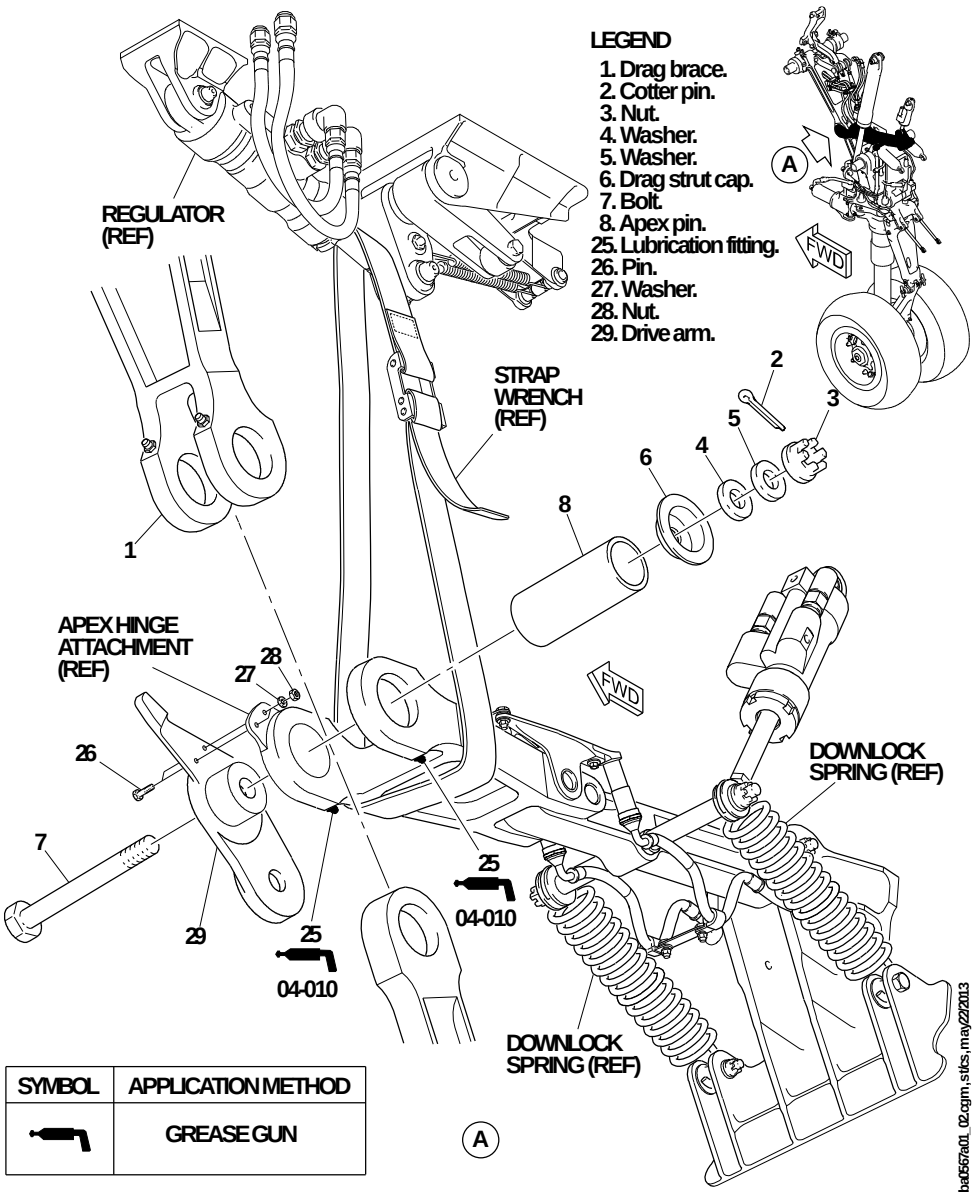
END ON A/C ALL

4. Close Out

ON A/C ALL

NLG Upper-Drag-Brace

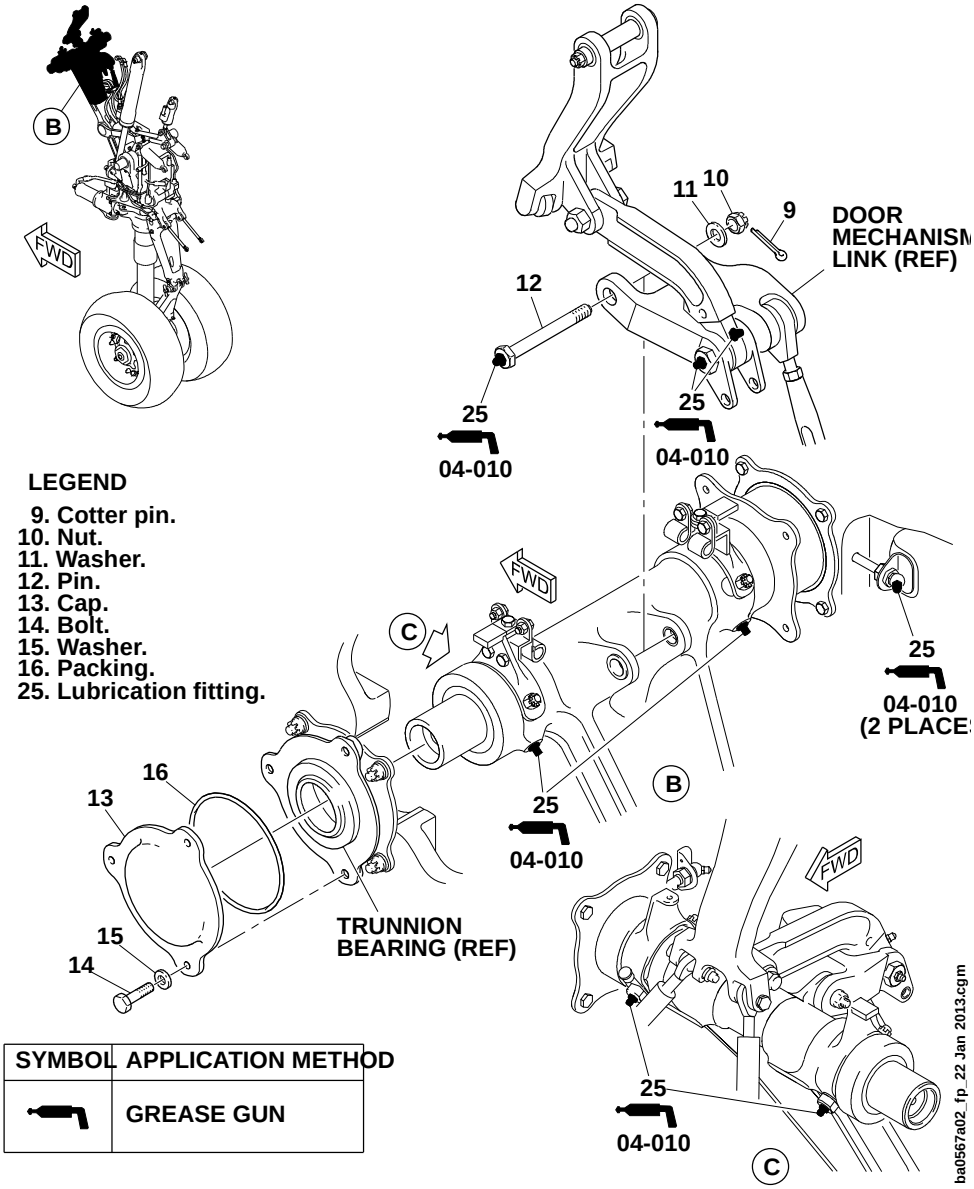
ON A/C ALL



Sheet 1 / 32-21-05-991-812

END ON A/C ALL

ON A/C ALL

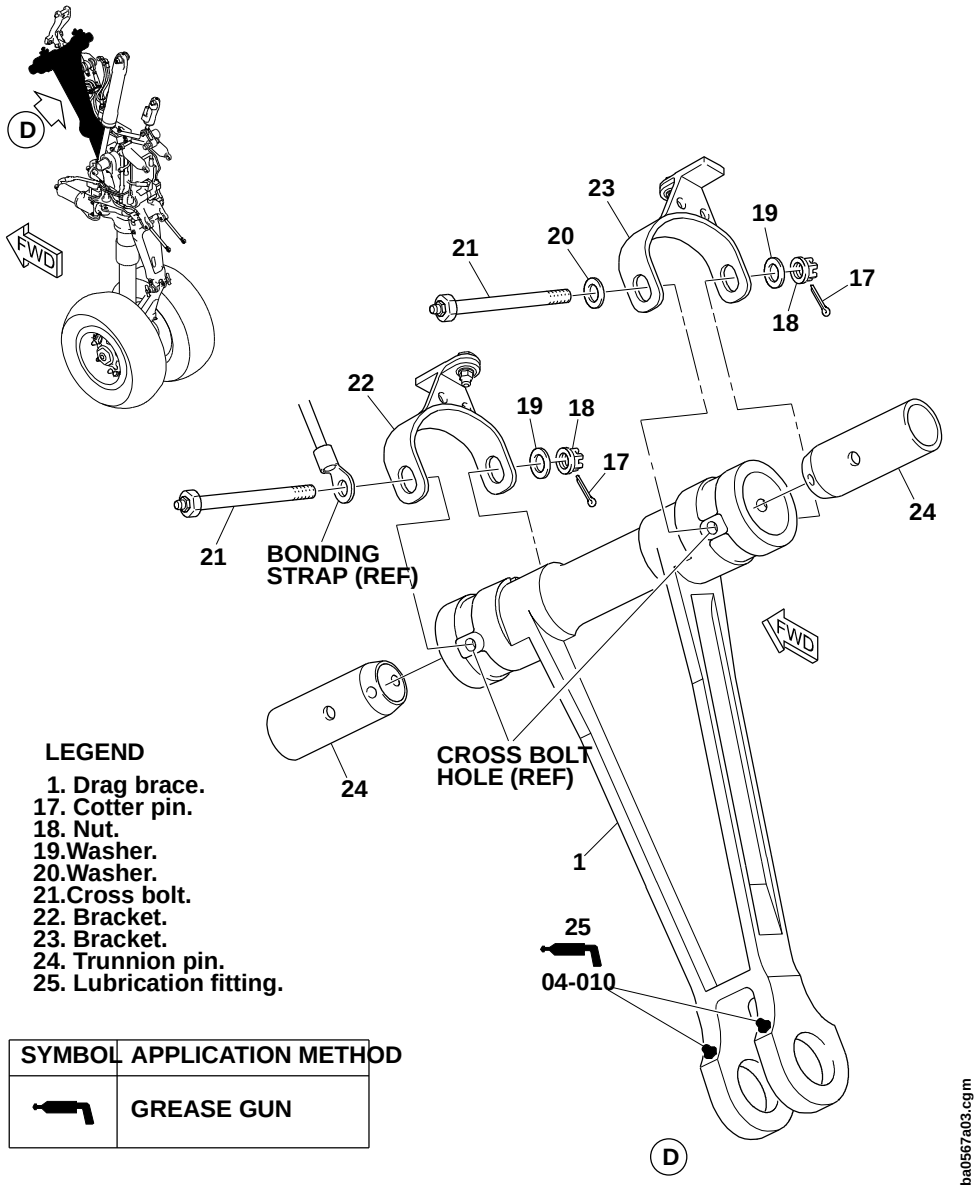


SYMBOL	APPLICATION METHOD
	GREASE GUN

Sheet 2 / 32-21-05-991-812

END ON A/C ALL

ON A/C ALL



LEGEND

1. Drag brace.
17. Cotter pin.
18. Nut.
19. Washer.
20. Washer.
21. Cross bolt.
22. Bracket.
23. Bracket.
24. Trunnion pin.
25. Lubrication fitting.

SYMBOL	APPLICATION METHOD
	GREASE GUN

Sheet 3 / 32-21-05-991-812

END ON A/C ALL

END ON A/C ALL

END ON A/C ALL