

Inspector Statement of Facts:

On 01/31/2024, an inspection of Runway 36L and HondaJet (HA-420), N103JT, was conducted at the Orlando International Airport (MCO).

Runway 36L Inspector's observations:

1. Initial location of RH MLG tire marking, located at approx. 2365ft. from Rwy 36L threshold and 5.5ft. left of Rwy 36L centerline, at approx. Lat.: 28°25'18.32"N, Long.: 81°19'36.17"W. The RH MLG tire marking is dark in appearance and extends from the initial location and diverges to the left (towards runway edge) for approx. 622ft. until reaching the edge of the pavement at approx. Lat.: 28°25'24.07"N, Long.: 81°19'37.95"W.
2. Initial location of LH MLG tire marking, located at approx. 2365ft. from Rwy 36L threshold and 16ft. left of Rwy 36L centerline, at approx. Lat.: 28°25'18.43"N, Long.: 81°19'36.36"W. The LH MLG tire marking alternates between light and dark appearances from initial location until exiting the pavement at approx. 28°25'22.79"N, Long.: 81°19'37.29"W. From the initial LH MLG tire marking location, the tire marking begins light in appearance (for approx. 116ft), then dark (for approx. 85ft.), and returns light (for approx. 355ft) as it diverges left towards the runway edge.
3. NLG tire marking noted at approx. 28°25'22.18"N, Long.: 81°19'37.13"W and is light in appearance. The NLG tire marking continues until runway edge marking.
4. MLG and NLG tire ruts observed in the grass, beginning from the left side of Rwy 36L's pavement edge, located at approx. Lat.: 28°25'24.07"N, Long.: 81°19'37.95"W and arcs towards RWY 36L's edge located at approx. Lat.: 28°25'30.14"N, Long.: 81°19'37.98"W. The length of the ruts extends through the grass for approx. 541ft.
5. LH MLG Tire marking observed from approx. Lat.: 28°25'30.14"N, Long.: 81°19'37.98"W, in a arcing fashion towards the centerline of RWY 36L. The LH MLG tire marking is dark in appearance and extend from the runway edge to beyond Rwy 36L centerline. The length of the LH MLG tire marking (beginning from approx. Lat.: 28°25'30.14"N, Long.: 81°19'37.98"W) is approx. 295ft long.
6. RH MLG tire marking observed beginning from RWY 36L's pavement edge (approx. Lat.: 28°25'30.14"N, Long.: 81°19'37.98"W) in a arcing fashion towards the centerline of RWY 36L. The RH MLG tire marking is light in appearance and the length extends approx. 200ft.
7. NLG tire marking observed beginning from RWY 36L's pavement edge (approx. Lat.: 28°25'30.14"N, Long.: 81°19'37.98"W) in a arcing fashion towards the centerline of RWY 36L. The NLG tire markings parallels the RH MLG and is offset from the RH MLG by 1 to 3 feet. The NLG tire markings is light in appearance and the length extends approx. 115 ft.

8. The aircraft's ending point was located at the Short Hold line of Rwy 36L at Taxiway Echo (approx. Lat.: 28°25'35.58"N, Long: 81°19'39.44"W). Fuel staining was observed on pavement edge south of Taxiway Echo; no fuel staining observed on Taxiway Echo. Taxiway Echo and portions of the runway, that had experienced fuel contamination, was cleaned days prior to the inspection.
9. Runway Distance Remaining (RDR) Sign: The sign was relocated to an Airport Operations building days prior to runway inspection and was not in the debris field.

The RDR sign is an ADB Airfield Solution Signature Series L-858 Taxiway/Runway Sign. Sign #: 18RS1-104, Serial # 2014021900066. The RDR sign had three aluminum posts; each post incorporated a reduced circumference area. The center and western mounted posts did not fracture at the reduced circumference area; the eastern mounted post did.

The RDR sign concrete mounting pad location, observed at approx. Lat.: 28°25'24.79"N, Long.: 81°19'38.23"W, has three RDR sign mounting points (secured by concrete anchors). Damage observed on the western side and center RDR sign mounts consisting of mount structural failure and mount separation. The eastern side RDR sign mount was intact and the post failed at the post's reduced circumference area. Dark LH MLG tire marking observed on the concrete south of the eastern mount's location and on the eastern mount. A light LH MLG tire marking observed on the concrete north of the eastern mount.

HondaJet, HA-420, N103JT, Inspector Observations:

1. NLG: Observed scuffing along the entire circumference of the RH portion of the NLG tire tread. No notable damage observed on NLG assembly.
2. LH MLG:
 - a. Tire: Observed scuffing along the entire circumference of the LH & RH portion of the MLG tire tread and tire sidewall. Observed a gash in the LH portion of the MLG tire tread that had reached tire chord depth (damage possibly from RDR signpost impact). Observed laceration on LH tire sidewall.
 - b. WoW Switch: Switch secured, no damage observed, plunger extended.
 - c. Assembly: LH MLG door, pushrod, and arm assembly damaged. Landing gear strut appears to be in proper extended position.
3. RH MLG:
 - a. Tire: Observed scuffing along the entire circumference of the RH portion of the MLG tire tread and tire sidewall.
 - b. WoW Switch: Switch secured, no damage observed, plunger extended.
 - c. Assembly: No notable damage observed. Landing gear strut appears to be in proper extended position.
4. Primary Flight Control:
 - a. Ailerons: No damage observed and functional during continuity check. No discrepancies observed during full range of travel.
 - b. Elevator: No damage observed and functional during continuity check. No discrepancies observed during full range of travel.
 - c. Rudder: No damage observed and functional during continuity check. No discrepancies observed during full range of travel.
5. Secondary Flight Controls:
 - a. Flaps: Flap position indicator indicated "LNG" flap setting. LH & RH Flaps observed in the landing down position.
 - b. Speed Brakes: No damage observed and functional during operational check.
 - c. Trim: Aileron, Rudder, and Elevator Trims functional during continuity check. No discrepancies observed during full range of travel. Prior to continuity check, the Rudder and Aileron Trims indicated neutral position and the Elevator Trim indicated "3.4" units.
6. LH Wing: LH Wing Leading Edge (LE), bottom of wing, and flap damaged observed.
 - a. The LE wing damaged observed at three locations;
 - LE damaged located approx. 34" from wing root extending to approx. 49". Depth of damage approx. 10". LE skin, rib, and piccolo tube damaged observed.
 - LE damaged located approx. 56" from wing root extending to approx. 68". Depth of damage approx. 4". LE skin damaged observed.
 - LE damaged located approx. 78" from wing root extending to approx. 92". Depth of damage approx. 8". LE skin and piccolo tube damaged observed.
 - b. Bottom of wing damage:
 - Multiple scuffs, scrapes and dents located on lower wing skin, location of damage is consistent with RDR sign impact.

- An approx. 2"-3" hole in lower wing skin. Temporary plug inserted to prevent a fuel leak.
 - An approx. 7" gash on bottom wing skin located next to outboard wing flap fairing.
 - Scuffs and scrapes located on outboard wing flap flaring.
- c. Flap damage:
- Lower flap skin damage; an approx.. 8"- 9" hole/gash.
 - Flap trailing edge damage; approx. 9" long.
7. LH Engine & Pylon: Minor scuffing along pylon and the transition between the pylon and engine cowling.
8. RH Wing: No damage observed.
9. RH Engine & Pylon: No damage observed.
10. Vertical & Horizontal Stabilizers: No damage observed.
11. Fuselage: No damage observed.

END

Ryan
Michael
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Digitally signed by
Ryan Michael Sebek
Date: 2024.02.07
12:12:16 -05'00'

Aviation Safety Inspector
Federal Aviation Administration
Orlando Flight Standard District Office

Aircraft ending point, at approx.
Lat.: 28°25'35.58"N -----> X
Long: 81°19'39.44"W

Taxiway E

Dark tire marking extending approx 295ft. ----->

Lat.: 28°25'30.14"N ----->
Long: 81°19'37.98"W

Blue line
Runway Edge Marking

Black line
Edge of Runway pavement

Tire ruts through the grass extending approx. 541 ft. ----->

9000 Ft. Runway Distance Remaining Sign
Approx. Lat.: 28°25'24.79"N, Long: 81°19'38.23"W ----->

Tire ruts through the grass extending approx. 77 ft. ----->

Lat.: 28°25'24.07"N ----->
Long: 81°19'37.95"W

Light tire marking extending approx. 355 ft. ----->

Dark tire marking extending
approx. 622 ft., w/4 in. width.

Dark tire marking extending approx. 85 ft. ----->

Light tire marking extending approx. 116 ft. ----->

Tire mark begins approx. 16 ft.
left of Rwy 36L Centerline
Lat.: 28°25'18.43"N
Long: 81°19'36.36"W

Tire mark begins 5.5 ft.
left of Rwy 36L Centerline
Lat.: 28°25'18.32"N
Long: 81°19'36.17"W

Tire marks begins Approx.
2365 ft. from Rwy 36L
Threshold

Approx. 2365 ft.

36L

Runway Width 200 ft.