



DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/22)

Montréal, 21 to 25 November 2022

Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2025)
2.2: Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2025-2026 Edition

CLASSIFICATION OF LITHIUM BATTERY-POWERED MOBILITY AIDS

(Presented by D. Brennan)

SUMMARY

This information paper invites the DGP-WG to discuss the appropriate classification of certain lithium battery-powered mobility aids.

1. INTRODUCTION

1.1 In 2011, the World Health Organization (WHO) estimated that more than one billion people live with some form of disability which constitutes approximately 15% of the world's population. With the ageing population, it can be assumed that the number will continue to rise. The increasing number of people with a disability means that there is an increasing probability that operators will have to accommodate requests from passengers with reduced mobility for the carriage of battery-powered mobility aids. At the same time, the market for battery-powered mobility aids is evolving.

1.2 Part 8; Table 8-1 in the Technical Instructions permits passengers whose mobility is restricted by either a disability, their health of age, or a temporary mobility problem to travel with mobility aids powered by lithium batteries. Where the batteries are left installed in the mobility aid, the batteries can exceed 300 Wh.

1.3 In the past few years, some manufacturers have invented ways to convert a manual wheelchair to a lithium ion battery-powered mobility aid. They manufacture single wheel devices with a battery holder and handle, which can be connected to a manual wheelchair and the entire wheelchair then now becomes a battery-powered mobility aid.

1.4 Below are some examples of such devices and the completed battery-powered mobility aids:



REMOVABLE LITHIUM-ION BATTERIES IN ALL TRIRIDE MODELS

(THE POWER AND THE SHAPE OF THE CASE CHANGE FROM MODEL TO MODEL)

ALL BATTERIES AUTOMATICALLY SELF DE-ACTIVATE AFTER 5 OF NO USAGE



36V and 48V batteries
Are locked to the frame with a key
and have an on-off button on the case



36V cylindrical batteries
Easily removable, it is activated by an on-off
button on the case



36V Evo batteries
Are locked to the frame with a key
and have an on-off button on the case





1.4.1 Depending on the model, the lithium ion batteries used in these devices can range from 252 Wh to 480 Wh.

1.5 Some operators reached out to us previously to seek clarification whether such devices could be classified and carried as battery-powered mobility aids. From the operational and safety perspectives, operators had concerns at the suitability of these types of products to be transported in accordance with the provisions on battery-powered mobility aids, but that same time must accommodate the needs of passengers with reduced mobility. These types of devices were discussed at the last meeting of the Dangerous Goods European Liaison Working Group (DGELG), at which participated representatives from most major European operators as well as some industry advisors. There were very divided opinions on the suitability of these types of “add-on” devices. Some considered them as battery-powered mobility aids while some hesitated but admitted that should a passenger approach them with such a device, it would be accepted.

1.6 As passengers travelling with such devices could be flying with any operators to any destination, some of these models shown above were shared with a few of our member airlines outside of Europe. We consulted them to see if these would be accepted as battery-powered mobility aids in accordance with the provisions in Part 8; Table 8-1 or not. Some of them responded that these devices would not be accepted as mobility aids but would be considered as portable electronic devices because they believed that their regulators would share the same view as theirs.

2. DISCUSSION BY THE DGP-WG

2.1 To enable and ensure seamless travel experience for passengers with reduced mobility that may have such add-on devices, the DGP-WG is invited to discuss and offer their opinion.

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