

Title (en)

COMPRESSOR IMPELLER WITH PARTIALLY SWEEPED LEADING EDGE SURFACE

Title (de)

VERDICHTERLAUFRAD MIT TEILWEISE ÜBERSTRÖMTER VORDERKANTE

Title (fr)

ROTOR DE COMPRESSEUR AVEC SURFACE DE BORD D'ATTAQUE PARTIELLEMENT BALAYÉE

Publication

**EP 3951188 B1 20240529 (EN)**

Application

**EP 21187065 A 20210721**

Priority

- IN 202011033883 A 20200807
- US 202017030040 A 20200923

Abstract (en)

[origin: EP3951188A1] An impeller (202) associated with a compressor (200) of a gas turbine engine includes a plurality of impeller blades (208). Each impeller blade of the plurality of impeller blades (208) has a leading edge (210) and a trailing edge (222) opposite the leading edge (210) in a streamwise direction. Each impeller blade of the plurality of impeller blades (208) extends in a spanwise direction from a hub at 0% span to a tip at 100% span, and each impeller blade of the plurality of impeller blades (208) has a plurality of mean camber lines (228) that each extend from the leading edge (210) to the trailing edge (222) at a respective spanwise location. The leading edge (210) includes a partially swept leading edge surface (239) defined between 70% span to 100% span that extends in the streamwise direction between 3% to 15% of a mean camber line (228) at 100% span.

IPC 8 full level

**F04D 29/28** (2006.01); **F04D 29/30** (2006.01)

CPC (source: EP)

**F04D 29/284** (2013.01); **F04D 29/30** (2013.01); **F05D 2250/51** (2013.01); **F05D 2250/70** (2013.01)

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DOCDB simple family (publication)

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