

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

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CPC (source: EP)

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