

Title (en)
Turbo compressor

Title (de)
Turboverdichter

Title (fr)
Turbo-compresseur

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Application
EP 00810274 A 20000331

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Abstract (en)
[origin: CA2312081A1] Turbocompressor (1) comprising an electric motor (2), a multistage radial turbocompressor (3) and also a common shaft (13), with a part section of the shaft (13) being formed as the armature (2b) of the electric motor (2) and wherein a further part section of the shaft (13) is formed as the rotor (3e) of the radial turbocompressor (3), with the rotor (3e) including a compressor shaft and also compressor wheels (3b) connected therewith, and wherein a plurality of electromagnetic radial bearings (5) are arranged spaced apart in the direction of extent of the shaft (13) for the journalling of the shaft (13), and wherein a single electromagnetic radial bearing (5) is arranged between the armature (2b) of the electric motor and the compressor wheel (36), and wherein the electric motor (2), the radial turbocompressor (3), the shaft (13) and also the radial bearings (5), are arranged in a common housing sealed in gas-tight manner relative to the outside, characterised in that the housing (6) consists of a plurality of part housings (6e, 6f, 6g) which can be fixedly connected together, in that the electric motor (2) is arranged in one part housing (6f) and the radial turbocompressor (3) in one part housing (6e, 6g) and in that the armature (2b) of the electric motor (2) and also the rotor (3e) of the radial turbocompressor (3) are connectable to form a common shaft (13) via a coupling (4) arranged between the armature (2b) of the electric motor (2) and the compressor wheel (36).</SDOA B>

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Citation (search report)
• [AD] DE 3729486 C1 19881215 - GUTEHOFFNUNGSHUETTE MAN
• [A] EP 0087197 A1 19830831 - BBC BROWN BOVERI & CIE [CH]
• [A] US 4523896 A 19850618 - LHENRY BERNARD [FR], et al
• [A] WO 9429597 A1 19941222 - MULTISTACK INT LTD [AU], et al
• [A] WO 9524563 A1 19950914 - WELSH INNOVATIONS LTD [GB], et al
• [A] EP 0297691 A1 19890104 - ACEC [BE]

Cited by
NL1018212C2; WO02099286A1; DE102007032933B4; RU2670993C1; EP1942280A3; US8801398B2; US8632320B2; WO2013160274A1; US9470238B2; US11274679B2; US7156627B2; EP4119798A1; DE102021118253A1; DE102021118253B4; US12006951B2; NL1021656C2; EP3726081A1; EP2462350A1; EP2290241A1; EP2315946A1; EP2761187A1; EP2113671A1; EP2469100A1; EP1830070A2; EP2295811A1

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