

Title (en)  
AIR FEED SYSTEM FOR AN INTERNAL COMBUSTION ENGINE

Title (de)  
LUFTZUFÜHRSYSTEM FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)  
SYSTÈME D'ALIMENTATION EN AIR POUR UN MOTEUR À COMBUSTION INTERNE

Publication  
**EP 3947955 A1 20220209 (DE)**

Application  
**EP 20713299 A 20200326**

Priority  
• EP 19166331 A 20190329  
• EP 2020058580 W 20200326

Abstract (en)  
[origin: WO2020201021A1] The invention relates to an air feed system for an internal combustion engine. The air feed system comprises a charge air receiver (1) for receiving charge air and a starting air system (10). The starting air system (10) is designed to feed starting air, in particular from a starting air feed, to the cylinder of the internal combustion engine intermittently during a starting process of the internal combustion engine. The charge air receiver (1) is connected to the starting air system (10) via a charge air shut-off valve (6) in order to feed charge air from the charge air receiver (1) to the starting air system (10) during partial-load operation of the internal combustion engine, such that the starting air system (10) feeds charge air to the cylinder intermittently during partial-load operation of the internal combustion engine. The invention further relates to an internal combustion engine and to a method for operating an internal combustion engine.

IPC 8 full level  
**F02N 9/02** (2006.01); **F02B 33/44** (2006.01); **F02B 37/00** (2006.01); **F02D 41/00** (2006.01); **F02N 9/04** (2006.01)

CPC (source: CN EP KR US)  
**F02B 33/446** (2013.01 - CN EP KR US); **F02B 37/00** (2013.01 - KR); **F02B 37/02** (2013.01 - CN US); **F02D 41/0007** (2013.01 - CN KR US); **F02D 41/062** (2013.01 - US); **F02N 9/04** (2013.01 - CN EP KR); **F02B 37/00** (2013.01 - EP); **F02D 41/0007** (2013.01 - EP); **Y02T 10/12** (2013.01 - EP KR)

Citation (search report)  
See references of WO 2020201021A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3715621 A1 20200930**; CN 113677884 A 20211119; EP 3947955 A1 20220209; JP 2022527304 A 20220601; KR 20210143877 A 20211129; US 2022195913 A1 20220623; WO 2020201021 A1 20201008; WO 2020201021 A9 20201126

DOCDB simple family (application)  
**EP 19166331 A 20190329**; CN 202080025922 A 20200326; EP 2020058580 W 20200326; EP 20713299 A 20200326; JP 2021557776 A 20200326; KR 20217034697 A 20200326; US 202017599072 A 20200326