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(71) Applicant: **EATON CORPORATION**
Eaton Center 111 Superior Ave.
Cleveland Ohio 44114(US)

(72) Inventor: **Mueller, Robert Seaver**
1415 Suffield Road
Birmingham Michigan 48069(US)

(72) Inventor: **Kimmons, Dannie Lamar**
259 Lincoln
Clawson Michigan 48017(US)

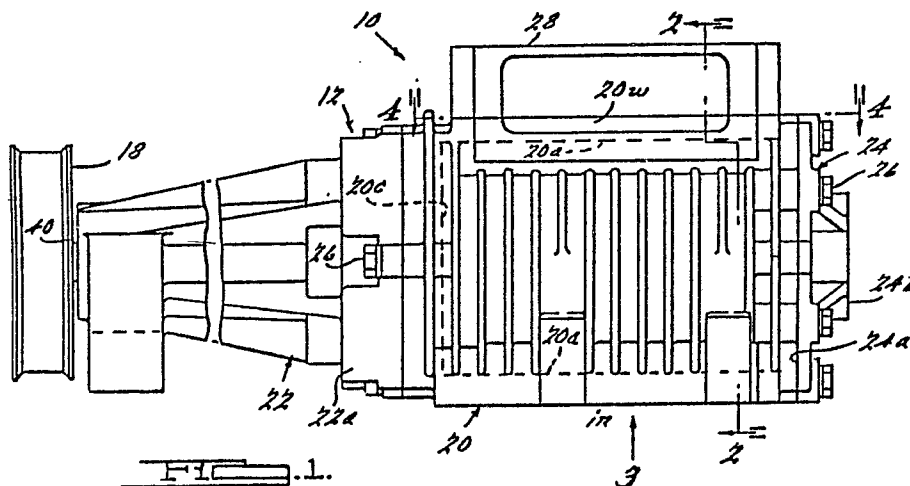
(72) Inventor: **Rusell, Daniel**
14919 Glenwood
Detroit Michigan 48205(US)

(74) Representative: **Douglas, John Andrew**
Eaton House Staines Road
Hounslow Middlesex TW4 5DX(GB)

(54) **Supercharger with reduced noise.**

(57) The blower (10) of the Roots-type includes a housing (12) defining generally cylindrical chambers (32,34) containing meshed lobed rotors (14,16) having the lobes (14a,14b,14c,16a,16b,16c) thereon formed with an end-to-end helical twist according to the relation $360^\circ/2n$, where n equals the number of lobes per rotor. Blower housing (12) also defines inlet and outlet ports (36, 38). The inlet port includes a longitudinal extent defined by housing wall surfaces (20f,20h) and a transverse extent defined by housing wall surfaces (20g,20i). Transverse wall surfaces (20g,20i) are disposed sub-

stantially parallel to the associated rotor lobes. The outlet port includes a longitudinal extent defined by housing surfaces (20m,20r) and a transverse extent defined by housing surfaces (20p,20s). Associated with the outlet port are first and second expanding orifices (42,44) disposed on transversely opposite sides of the outlet port for controlling the rate of backflow into the transfer volumes and operative at predetermined rotor speed and pressure differential relationships to maintain a substantially constant backflow rate into each of the transfer volumes.





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 85306198.4
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	US - A - 2 028 414 (SCHNEIDER) * Totality; fig. 2 * --	1,7,10, 12	F 04 C 18/18 F 02 B 33/38 F 04 C 29/06
A	DE - A1 - 3 238 015 (AERZENER) * Totality; claims * --	1,2,4, 7,10, 11	
A	US - A - 2 701 683 (WHITFIELD) * Totality * --	1,4,10, 11,12	
A	US - A - 3 667 874 (WHEATHERTON) * Totality * --	1,4, 11,12	
A	AT - B - 242 855 (POLYSIUS) * Totality; especially page 1, lines 1-22 * -----	1,4	TECHNICAL FIELDS SEARCHED (Int. Cl.4) F 01 C 1/00 F 01 C 21/00 F 02 B 33/00 F 04 C 18/00 F 04 C 29/00
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 24-11-1986	Examiner WERDECKER
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			