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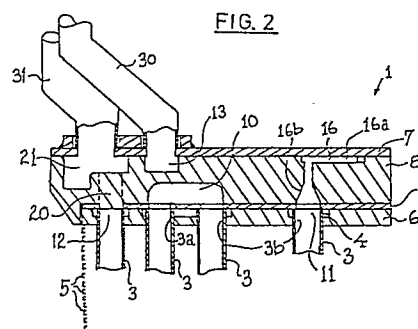
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54 **Heat exchanger.**

57 A heat exchanger (1), e.g. an evaporator for a vehicle air conditioning system, comprises a plurality of finned U-shaped tubes (3) having free ends (3a, 3b) permanently fixed, e.g. adhesively bonded, to an end plate assembly formed of a number of end plate means (6-9) defining connecting channels (10) connecting together pairs of free ends of the tubes (3) to provide at least one flow channel for heat exchange fluid. The end plate means (6-9) are permanently united, e.g. adhesively bonded, together to form with the end portions of the U-shaped tubes (3) a permanently united integral end plate assembly.





EP 89 30 1310

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	EP-A-0 228 330 (S.A. DES USINES CHAUSSON) * Column 2, line 12 - column 3, line 50; figures 1-5 *	1,2,4-10,13,16	F 28 F 9/02 F 28 F 9/26 F 25 B 39/02
X	US-A-4 114 397 (TAKAHASHI et al.) * Column 2, line 25 - column 3, line 37; column 4, lines 30-57; figures 1-9 *	1,4,11,13,16	
Y	---	3,5,7,10,15	
Y	EP-A-0 140 069 (AKZO GmbH) * Abstract; figure 1 *	3	
Y	DE-A-3 310 236 (AUTOKÜHLER-GESELLSCHAFT mbH) * Page 6, line 16 - page 7, line 32; page 8, line 17 - page 9, line 1; figures 2-6 *	5,7,10,15	
X	FR-A-2 573 190 (S.A. DES USINES CHAUSSON) * Page 2, line 34 - page 4, line 21; figures 1-4 *	1,2,4-6,10	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	---	13	F 28 F F 25 B B 23 P
X	DE-A-2 300 881 (MODINE MANUFACTURING CO.) * Page 2, line 23 - page 4, line 8; page 6, line 5 - page 7, line 4; figures 1-3 *	1,4	
Y	---	5,10	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21-06-1989	Examiner BELTZUNG F.C.
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	



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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)												
Y	US-A-3 151 676 (OTTO et al.) * Column 2, line 61 - column 4, line 16; figures 1-7 *	5,10													
A	DE-B-1 077 681 (IDEAL-STANDARD GmbH) * Column 3, line 57 - column 4, line 42; figures 1-4 *	1,4,7,8,13													
A	US-A-2 310 234 (HAUG) * Page 2, left-hand column, line 65 - right-hand column, line 7; figures 2,3 *	1,8,9													
A	EP-A-0 172 659 (GENERAL MOTORS CORP.) * Page 3, line 28 - page 6, line 10; figures 1-3 *	1,4,11,12													
A	US-A-4 421 160 (STAFFORD et al.) * Column 4, lines 27-44; column 5, lines 27-49; figures 2,7 *	1,13,14													
A	US-A-4 698 904 (NOZAWA et al.) * Whole document *	16,17	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)												
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<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS</td><td></td></tr><tr><td>X : particularly relevant if taken alone</td><td>T : theory or principle underlying the invention</td></tr><tr><td>Y : particularly relevant if combined with another document of the same category</td><td>E : earlier patent document, but published on, or after the filing date</td></tr><tr><td>A : technological background</td><td>D : document cited in the application</td></tr><tr><td>O : non-written disclosure</td><td>L : document cited for other reasons</td></tr><tr><td>P : intermediate document</td><td>& : member of the same patent family, corresponding document</td></tr></table>				CATEGORY OF CITED DOCUMENTS		X : particularly relevant if taken alone	T : theory or principle underlying the invention	Y : particularly relevant if combined with another document of the same category	E : earlier patent document, but published on, or after the filing date	A : technological background	D : document cited in the application	O : non-written disclosure	L : document cited for other reasons	P : intermediate document	& : member of the same patent family, corresponding document
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