

Title (en)  
Self-regulating fuel oil heater

Title (de)  
Selbstregulierte Heizvorrichtung für Heizöl

Title (fr)  
Réchauffeur de mazout auto-régulé

Publication  
**EP 0814302 A1 19971229 (FR)**

Application  
**EP 97401095 A 19970516**

Priority  
FR 9607224 A 19960611

Abstract (en)  
The heater includes a tubular square sectioned heating body (4) of thermo-conducting material, longitudinally traversed by a circular sectioned conduit (5) having members (2,3,7) for sealingly coupling one side of the inlet under pressure of oil to be heated and the other, at the jet nozzle of the burner. The heating element is in form of a plate (8,9) of positive coefficient of Temperature which adjusts itself against a plane face (4a,4b) of the tubular heating body. There is a feed circuit (26), and a circuit of temperature detection (15) controlling the functioning of the burner. The heating plate (8,9) is pressed (F) onto a plane face (4a,4b) of the heating body (4) by a rectangularly shaped wing (10,11) of thermo-conducting material of width equal to that of the body (4). At the end of the zone of intersection between this plane face of the body (4a,4b) and the face immediately adjacent (4d), this wing (10,11) extends practically the length of the heating body and is spaced adequately to be turned down in cooperation with the folding zones (20,24), against the external face opposite to the heating plate (8,9) to recover the heat diffusing to its exterior.

Abstract (fr)  
La présente invention concerne un réchauffeur pour brûleur à mazout comprenant : un corps de chauffe tubulaire (4) traversé longitudinalement par au moins un conduit (5), au moins un élément chauffant du type plaquettes (8,9) à coefficient positif de température (CTP), un circuit d'alimentation (26) du ou des CTP, un circuit de détection de température (15) commandant la mise en route du brûleur, caractérisé en ce que au moins une plaquette CTP (8,9) est maintenue en appui (F) sur au moins une face plane (4a,4b) du corps de chauffe (4) par une aile (10,11) issue de la zone d'intersection entre ladite face plane du corps (4a,4b) et la face immédiatement adjacente (4d), ladite aile (10,11) présentant une épaisseur adéquate pour pouvoir être convenablement rabattue contre la face externe opposée de ladite plaquette CTP (8,9) et récupérer ainsi les calories diffusant à l'extérieur de celle-ci. <IMAGE>

IPC 1-7  
**F23D 11/44**

IPC 8 full level  
**F23D 11/44** (2006.01)

CPC (source: EP)  
**F23D 11/44** (2013.01)

Citation (applicant)  
• DE 2912000 A1 19801106 - MEKU METALL KUNSTSTOFF  
• DE 4216008 A1 19931118 - RAUSCH & PAUSCH [DE]

Citation (search report)  
• [AD] DE 4216008 A1 19931118 - RAUSCH & PAUSCH [DE]  
• [A] EP 0017057 A1 19801015 - MEKU METALL KUNSTSTOFF [DE] & DE 2912000 A1 19801106 - MEKU METALL KUNSTSTOFF  
• [A] EP 0573691 A1 19931215 - DAVID & BAADER DBK SPEZFAB [DE]

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