

Title (en)  
Non-pollution steam boiler.

Title (de)  
Verschmutzungsfreier Dampfkessel.

Title (fr)  
Générateur de vapeur non-polluant.

Publication  
**EP 0551546 A1 19930721 (EN)**

Application  
**EP 92100686 A 19920116**

Priority  
EP 92100686 A 19920116

Abstract (en)  
This invention relates to a non-fuel and non-pollution steam boiler taking advantage of the long waves of a Laser as a heat energy source to generate steam in a boiler. The integral equipments contains 1. a Laser transmitter which includes a set of storage batteries to provide high voltage, via vibrator, to emit an intermittent pulse laser through ruby or carbon dioxide to achieve an energy of heat. 2. a unit of heating unit that can entirely receive heat energy from light of laser. 3. a similar to conventional fire-tube steam boiler at the bottom of which are installed heating unit in small pipe/pipes instead of fire-tube. 4. an electrogenerator driven by steam turbine specially to charge storage battery. <IMAGE>

IPC 1-7  
**F22B 1/00**

IPC 8 full level  
**F22B 1/00** (2006.01)

CPC (source: EP)  
**F22B 1/00** (2013.01)

Citation (search report)  
• [Y] US 4644169 A 19870217 - HUNT STANLEY E [US]  
• [Y] US 3977198 A 19760831 - BERRY CLYDE F  
• [A] US 4658115 A 19870414 - HEATH VERNON [US]

Cited by  
GB2442239A; GB2492363A; FR2931224A1; CN104619457A; US9366455B1; WO2014019814A1; US8881526B2; US9810423B2

Designated contracting state (EPC)  
AT BE CH DK ES FR GR IT LI LU MC NL PT SE

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