

# SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING

## F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES

### F23H GRATES (inlets for fluidisation air for fluidised bed combustion apparatus F23C 10/20); CLEANING OR RAKING GRATES

#### Subclass index

#### GRATES

With solid bars; with hollow bars.....	1/00, 3/00
Double; inclined; revolving or rocking; travelling.....	5/00, 7/00, 9/00, 11/00
Other types.....	13/00
Details.....	17/00

CLEANING ARRANGEMENTS FOR GRATES, MOVING FUEL ALONG GRATE.....15/00

#### **1/00 Grates with solid bars** (double grates F23H 5/00)

- 1/02 • having provision for air supply or air preheating, e.g. air-supply or blast fittings which form part of the grate structure or serve as supports
- 1/04 • having a variable burning surface
- 1/06 • having bars at different levels
- 1/08 • Vertical grates

#### **3/00 Grates with hollow bars**

- 3/02 • internally cooled
- 3/04 • externally cooled, e.g. with water, steam, or air

#### **5/00 Double grates**

#### **7/00 Inclined grates** (inclined travelling grates F23H 11/12)

- 7/02 • with fixed bars
- 7/04 • • in parallel disposition
- 7/06 • with movable bars disposed parallel to direction of fuel feeding
- 7/08 • • reciprocating along their axes
- 7/10 • • rocking about their axes
- 7/12 • with movable bars disposed transversely to direction of fuel feeding
- 7/14 • • reciprocating along their axes
- 7/16 • • rocking about their axes
- 7/18 • • reciprocating in an upward direction

#### **9/00 Revolving grates; Rocking grates** (F23H 7/00 takes precedence)

- 9/02 • Revolving cylindrical grates
- 9/04 • Grates rocked as a whole
- 9/06 • the bars being rocked about axes transverse to their lengths
- 9/08 • the bars being rocked about their longitudinal axes
- 9/10 • • and modified to move fuel along the grate
- 9/12 • the bars being vertically movable in a plane

#### **11/00 Travelling grates**

- 11/02 • with the bars disposed on transverse bearers
- 11/04 • with the bars pivoted at one side
- 11/06 • with the bars movable relatively to one another
- 11/08 • with several individually-movable grate surfaces
- 11/10 • with special provision for supply of air from below and for regulating air supply
- 11/12 • inclined travelling grates; Stepped travelling grates
- 11/14 • serving as auxiliary grates
- 11/16 • for multi-layer stoking
- 11/18 • Details
- 11/20 • • Driving means
- 11/22 • • Moving fuel along grate; Cleaning of grate
- 11/24 • • Removal of ashes; Removal of clinker
- 11/26 • • • by dumping
- 11/28 • • Replaceable burning-surface

#### **13/00 Grates not covered by any of groups F23H 1/00-F23H 11/00**

- 13/02 • Basket grates, e.g. with shaking arrangement
- 13/04 • Telescoping grates
- 13/06 • Dumping-grates
- 13/08 • Grates specially adapted for gas generators and also applicable to furnaces

#### **15/00 Cleaning arrangements for grates** (not forming part of the grate F23J 1/00); **Moving fuel along grate** (rocking grates modified for moving fuel F23H 9/10; for travelling grates F23H 11/22)

#### **17/00 Details of grates**

- 17/02 • End fittings on bars
- 17/04 • • of travelling grates
- 17/06 • Provision for vertical adjustment of grate
- 17/08 • Bearers; Frames; Spacers; Supports
- 17/10 • • Dead plates; Imperforate fuel supports
- 17/12 • Fire-bars