

CPC**COOPERATIVE PATENT CLASSIFICATION****H01T**

SPARK GAPS; OVERVOLTAGE ARRESTERS USING SPARK GAPS; SPARKING PLUGS; CORONA DEVICES; GENERATING IONS TO BE INTRODUCED INTO NON-ENCLOSED GASES (working of metal by the action of a high concentration of electric current [B23H](#); welding, e.g. arc welding, electron beam welding or electrolytic welding [B23K](#); gas-filled discharge tubes with solid cathode [H01J 17/00](#); electric arc lamps [H05B 31/00](#))

NOTE

In this subclass, the term "spark gaps" is used with the following meaning:

- enclosed or non-enclosed discharge device having cold electrodes and used exclusively to discharge a quantity of electrical energy in a small time duration.

H01T 1/00**Details of spark gaps****H01T 1/02**

- . Means for extinguishing arc

H01T 1/04

- .. using magnetic blow-out

H01T 1/06

- ... with permanent magnet

H01T 1/08

- .. using flow of arc-extinguishing fluid

H01T 1/10

- ... with extinguishing fluid evolved from solid material by heat of arc

H01T 1/12

- . Means structurally associated with spark gap for recording operation thereof

H01T 1/14

- . Means structurally associated with spark gap for protecting it against overload or for disconnecting it in case of failure ([H01T 1/15](#), [H01T 1/16](#), [H01T 1/18](#) take precedence)

H01T 1/15

- . for protection against excessive pressure

H01T 1/16

- . Series resistor structurally associated with spark gap

H01T 1/18

- . Electrolytic device structurally associated with spark gap

H01T 1/20

- . Means for starting arc or facilitating ignition of spark gap

H01T 1/22

- .. by the shape or the composition of the electrodes

H01T 1/24

- . Selection of materials for electrodes ([H01T 1/22](#) takes precedence)

H01T 2/00**Spark gaps comprising auxiliary triggering means** (triggering circuits [H01T 15/00](#))**H01T 2/02**

- . comprising a trigger electrode or an auxiliary spark gap

H01T 4/00**Overvoltage arresters using spark gaps** ([H01T 2/00](#) takes precedence; overvoltage protection circuits using spark gaps [H02H 9/06](#))**H01T 4/02**

- . Details (of spark gaps [H01T 1/00](#))

H01T 4/04

- . Housings ([H01T 4/06](#) takes precedence)

H01T 4/06

- . Mounting arrangements for a plurality of overvoltage arresters

H01T 4/08

- . structurally associated with protected apparatus (with switches [H01H 9/14](#); with fuses [H01H 85/44](#))

- H01T 4/10 . having a single gap or a plurality of gaps in parallel
- H01T 4/12 . . hermetically sealed
- H01T 4/14 . . Arcing horns ([associated with insulators H01B 17/46](#))
- H01T 4/16 . having a plurality of gaps arranged in series
- H01T 4/18 . . Arrangements for reducing height of stacked spark gaps
- H01T 4/20 . . Arrangements for improving potential distribution

- H01T 7/00 Rotary spark gaps, i.e. devices having one or more rotating electrodes**

- H01T 9/00 Spark gaps specially adapted for generating oscillations**

- H01T 11/00 Spark gaps specially adapted as rectifiers**

- H01T 13/00 Sparking plugs**
- H01T 13/02 . Details
- H01T 13/04 . . Means providing electrical connection to sparking plug ([electric connections in general H01R](#))
 - ... combined with interference suppressing or shielding means
- H01T 13/05 combined with interference suppressing or shielding means
- H01T 13/06 . . Covers forming a part of the plug and protecting it against adverse environment
- H01T 13/08 . . Mounting, fixing or sealing of sparking plugs, e.g. in combustion chamber
 - ... by bayonet-type connection
- H01T 13/10 by bayonet-type connection
- H01T 13/12 . . Means on sparking plugs for facilitating engagement by tool or by hand
- H01T 13/14 . . Means for self-cleaning
- H01T 13/16 . . Means for dissipating heat
- H01T 13/18 . . Means for heating, e.g. for drying
- H01T 13/20 . characterised by features of the electrodes or insulation
- H01T 13/22 . . having two or more electrodes embedded in insulation ([for two or more sparks H01T 13/46](#))
- H01T 13/24 . . having movable electrodes ([H01T 13/28 takes precedence](#))
 - ... for adjusting spark gap otherwise than by bending of electrode
- H01T 13/26 for adjusting spark gap otherwise than by bending of electrode
- H01T 13/28 . . having spherically shaped electrodes, e.g. ball-shaped
 - ... mounted so as to permit free movement
- H01T 13/30 mounted so as to permit free movement
- H01T 13/32 . . characterised by features of the earthed electrode
- H01T 13/34 . . characterised by the mounting of electrodes in insulation, e.g. by embedding
- H01T 13/36 . . characterised by the joint between insulation and body, e.g. using cement
- H01T 13/38 . . Selection of materials for insulation ([in general H01B 3/00](#))
- H01T 13/39 . . Selection of materials for electrodes
- H01T 13/40 . structurally combined with other devices ([combined or associated with fuel injectors F02M 57/06; structurally combined with other parts of internal-combustion engines F02P 13/00](#))
 - ... with interference suppressing or shielding means
 - ... with magnetic spark generators
 - ... with transformers, e.g. for high-frequency ignition
- H01T 13/41 . . with interference suppressing or shielding means
- H01T 13/42 . . with magnetic spark generators
- H01T 13/44 . . with transformers, e.g. for high-frequency ignition

H01T 13/46	<ul style="list-style-type: none"> having two or more spark gaps
H01T 13/462	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {in series connection}
H01T 13/465	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {one spark gap being incorporated in the sparking plug}
H01T 13/467	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {in parallel connection}
H01T 13/48	<ul style="list-style-type: none"> having means for rendering sparks visible
H01T 13/50	<ul style="list-style-type: none"> having means for ionisation of gap (H01T 13/52 takes precedence)
H01T 13/52	<ul style="list-style-type: none"> characterised by a discharge along a surface
H01T 13/54	<ul style="list-style-type: none"> having electrodes arranged in a partly-enclosed ignition chamber
H01T 13/56	<ul style="list-style-type: none"> characterised by having component parts which are easily assembled or disassembled
H01T 13/58	<ul style="list-style-type: none"> Testing (testing characteristics of the spark in internal-combustion engine ignition F02P 17/12)
H01T 13/60	<ul style="list-style-type: none"> <ul style="list-style-type: none"> of electrical properties
H01T 14/00	Spark gaps not provided for in groups H01T 2/00 to H01T 13/00 (devices providing for corona discharge H01T 19/00)
H01T 15/00	Circuits specially adapted for spark gaps, e.g. ignition circuits (ignition circuits for internal-combustion engines F02P; electric spark ignition for combustion apparatus F23Q; protection circuits using spark gaps H02H 9/06)
H01T 19/00	Devices providing for corona discharge (for charging electrographic elements G03G 15/02)
H01T 19/02	<ul style="list-style-type: none"> Corona rings
H01T 19/04	<ul style="list-style-type: none"> having pointed electrodes
H01T 21/00	Apparatus or processes specially adapted for the manufacture or maintenance of spark gaps or sparking plugs
H01T 21/02	<ul style="list-style-type: none"> of sparking plugs
H01T 21/04	<ul style="list-style-type: none"> <ul style="list-style-type: none"> Cleaning (abrasive blasting devices for cleaning sparking-plugs B24C 3/34)
H01T 21/06	<ul style="list-style-type: none"> Adjustment of spark gaps (sparking-plugs having movable electrodes for adjusting the gap H01T 13/26)
H01T 23/00	Apparatus for generating ions to be introduced into non-enclosed gases, e.g. into the atmosphere (discharge tubes with provision for emergence of ions from the vessel H01J 33/00; generating plasma H05H)