

Title (en)

Multifunction floating ring for plasma torch

Title (de)

Schwimmend befestigter Multifunktionsring für Plasmabrenner

Title (fr)

Bague flottante multifonction pour torche plasma

Publication

EP 2293655 B1 20161102 (FR)

Application

EP 10170565 A 20100723

Priority

FR 0955991 A 20090903

Abstract (en)

[origin: EP2293655A1] The plasma cutting torch head comprises an upstream end and a downstream end and a metallic ring (3) rotatably and translationally mounted at the upstream end of the torch head, and an electrode, a nozzle and a protective cover (4) at its downstream end. The ring comprises a coupling unit (5) to cooperate with a receiving unit (6) arranged on the torch head for connecting the ring to the head so as to prevent any rotation of the ring around the torch head. The coupling unit is arranged at the peripheral edge of the ring and on the side of the downstream end of the torch head. The plasma cutting torch head comprises an upstream end and a downstream end and a metallic ring (3) rotatably and translationally mounted at the upstream end of the torch head, and an electrode, a nozzle and a protective cover (4) at its downstream end. The ring comprises a coupling unit (5) to cooperate with a receiving unit (6) arranged on the torch head for connecting the ring to the head so as to prevent any rotation of the ring around the torch head. The coupling unit is arranged at the peripheral edge of the ring and on the side of the downstream end of the torch head, and provides expansion of the edge of the ring projecting axially toward the downstream portion of the torch head. The receiving unit comprises a flat side, a housing or a gate to cooperate with one expansion of the wall of the ring for obtaining a blockage of the rotation of the ring on the torch head. The expansions are obtained by machining the material of the ring, cutting or grinding the edge of the ring. The ring further comprises a thread formed on the inner surface to secure the torch head to a torch body (2). The mechanically coupling unit is engaged in the receiving unit to block the rotation of the ring. Independent claims are included for: (1) an assembly formed of a plasma cutting torch head; and (2) a process for plasma arc cutting.

IPC 8 full level

H05H 1/34 (2006.01)

CPC (source: EP US)

H05H 1/3423 (2021.05 - EP US)

Cited by

CN110303228A; EP3082384A4; WO2021093987A1; EP3082384B1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2293655 A1 20110309; EP 2293655 B1 20161102; ES 2605819 T3 20170316; FR 2949638 A1 20110304; FR 2949638 B1 20161028

DOCDB simple family (application)

EP 10170565 A 20100723; ES 10170565 T 20100723; FR 0955991 A 20090903