Title (en)
  Start control device for internal combustion engine

Title (de)
  Startsteuervorrichtung eines Verbrennungsmotors

Title (fr)
  Dispositif de contrôle du démarrage pour moteur à combustion interne

Publication
  EP 2037118 A3 20130109 (EN)

Application
  EP 08253013 A 20080912

Priority
  JP 2007238162 A 20070913

Abstract (en)
  [origin: EP2037118A2] A target rotation angle of a crank angle between a crank angle stored upon stoppage of a crankshaft (8) and a reference position (45b) is computed. Then, the presence of a failure in the starting means (20) is determined based on whether a missing tooth part (45b) is detected when the crankshaft (8) rotates by the target rotation angle from the rotation stop position of the crankshaft (8) after an engine (1) is started by a starting means (20). If the missing tooth part (45b) is not detected when the crankshaft (8) rotates by the target rotation angle from the rotation stop position of the crankshaft (8), it is determined that the starting means (20) has a failure because there is a high possibility of a reverse rotation of the crankshaft (8) due to a failure in the starting means (20).

IPC 8 full level
  F02N 11/10 (2006.01); **F02N 15/02** (2006.01); F02D 41/34 (2006.01)

CPC (source: EP)
  F02N 11/108 (2013.01); **F02N 15/022** (2013.01); F02D 41/009 (2013.01); F02D 2041/0095 (2013.01); F02N 2200/021 (2013.01); F02N 2250/04 (2013.01)

Citation (search report)
  • [XYI] US 5604304 A 19970218 - KOKUBO NAOKI [JP], et al
  • [X] EP 0899573 A1 19990303 - BAYERISCHE MOTOREN WERKE AG [DE]
  • [YD] JP 2005009430 A 20050113 - TOYOTA MOTOR CORP

Cited by
  CN111757829A; CN112392617A; CN112727600A

Designated contracting state (EPC)
  AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
  AL BA MK RS

DOCDB simple family (publication)
  EP 2037118 A2 20090318; **EP 2037118 A3 20130109**; JP 2009068425 A 20090402; JP 4508225 B2 20100721

DOCDB simple family (application)
  EP 08253013 A 20080912; JP 2007238162 A 20070913