

Title (en)

REMOTE ELECTRICAL TILT ANTENNA WITH MOTOR AND CLUTCH ASSEMBLY

Title (de)

ABGESETZTE ELEKTRISCHE NEIGUNGSANTENNE MIT MOTOR- UND KUPPLUNGSBAUGRUPPE

Title (fr)

ANTENNE À TÉLÉCOMMANDE D'INCLINAISON ÉLECTRIQUE ÉQUIPÉE D'UN MOTEUR ET D'UN BLOC D'EMBRAYAGE

Publication

**EP 2248272 A4 20130116 (EN)**

Application

**EP 09709448 A 20090211**

Priority

- US 2009033773 W 20090211
- US 2753008 P 20080211

Abstract (en)

[origin: WO2009102774A2] RET antenna with motor and clutch assembly that is operative to mechanically disengage the DC motor and drive unit (also called the gear-motor unit) from the phase shifter adjustment shaft during a manual tilt operation. Disengaging the gear- motor unit removes the drag of the motor and the high gear ratio gear box from the phase shifter control rod making it easier to manually turn the phase shifter control knob. In addition, the clutch disengages the gear-motor without disengaging the position detector from the phase shifter control rod so that position calibration is not lost during manual tilt adjustment. When the manual tilt operation is completed, the mechanical tilt clutch enables the gear-motor unit to be reliably re-engaged with the phase shifter control rod for motorized electrical tilt operation without having to re- calibrate the position detector.

IPC 8 full level

**H04B 1/38** (2006.01); **H01Q 1/24** (2006.01); **H01Q 3/00** (2006.01); **H01Q 3/32** (2006.01); **H04W 88/08** (2009.01)

CPC (source: EP KR)

**H01Q 1/246** (2013.01 - EP); **H01Q 3/00** (2013.01 - KR); **H01Q 3/005** (2013.01 - EP); **H01Q 3/32** (2013.01 - EP)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 2009102774A2

Citation (examination)

- US 7286092 B2 20071023 - TREJTNAR ZDENEK [GB], et al
- GB 1042826 A 19660914 - CANADIAN PATENTS DEV

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 MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**WO 2009102774 A2 20090820; WO 2009102774 A3 20100114**; CA 2725886 A1 20090820; CA 2725886 C 20170627; CA 2725888 A1 20090820; CA 2725888 C 20180925; CN 102150325 A 20110810; CN 102150325 B 20140611; CN 102150374 A 20110810; CN 102150374 B 20150225; EP 2248272 A2 20101110; EP 2248272 A4 20130116; EP 2253046 A2 20101124; EP 2253046 A4 20130116; EP 2253046 B1 20201028; IL 207479 A0 20101230; IL 207479 A 20171231; IL 207480 A0 20101230; IL 207480 A 20160331; KR 101589580 B1 20160128; KR 20100122092 A 20101119; MX 2010008827 A 20101220; MX 2010008830 A 20101220; WO 2009102775 A2 20090820; WO 2009102775 A3 20100114

DOCDB simple family (application)

**US 2009033773 W 20090211**; CA 2725886 A 20090211; CA 2725888 A 20090211; CN 200980108711 A 20090211; CN 200980108722 A 20090211; EP 09709448 A 20090211; EP 09711078 A 20090211; IL 20747910 A 20100808; IL 20748010 A 20100808; KR 20107019946 A 20090211; MX 2010008827 A 20090211; MX 2010008830 A 20090211; US 2009033774 W 20090211