

Title (en)  
THIN TWO-WAY RATCHET WRENCH

Title (de)  
FLACHER ZWEIWEGE-RATSCHENSCHLÜSSEL

Title (fr)  
CLÉ À CLIQUET BIDIRECTIONNELLE FINE

Publication  
**EP 3159110 A4 20180307 (EN)**

Application  
**EP 14895008 A 20140619**

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Abstract (en)  
[origin: EP3159110A1] The thickness of the thin bidirectional ratchet wrench of the present invention is less than or equal to 30mm, it can be used in narrow space easily and achieves two working mode and can convert between them conveniently and stably. During the use of the thin bidirectional ratchet wrench of the present invention, the input torque that the operator exerts is a clockwise torque or an anticlockwise torque, the output torque of output end of the thin bidirectional ratchet wrench of the present invention is a clockwise torque or an anticlockwise torque alternatively.

IPC 8 full level  
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Citation (search report)  
• [I] CN 203045591 U 20130710 - HANGZHOU GREATSTAR TOOL CO LTD, et al  
• [A] JP 3001811 B2 20000124  
• [A] US 2013298735 A1 20131114 - HOBDEN ROBERT J B [CA], et al  
• [A] US 5603393 A 19970218 - GHODE ANIL P [US], et al

Citation (examination)  
• GB 2132926 A 19840718 - KONECNY JAMES WILLIAM  
• See also references of WO 2015192354A1

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