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(71) Applicant: BITELLI S.p.A. 40061 Minerbio (BO) (IT)

(72) Inventor: Bitelli, Romolo S. Lazzaro (BO) (IT)

(74) Representative: Bonini, Ercole c/o STUDIO ING. E. BONINI SRL Corso Fogazzaro 8
36100 Vicenza (IT)

(54) Working member for ripper drums on heavy vehicles for removing ground, equipped with quick release tool and tooldhead

A working member (1) for ripper drums (T) of heavy vehicles for removing ground comprising: a support base (2) provided with a toolhead (4) having a longitudinal hole (5) through it and a through transversal hole (6) that intersects said longitudinal hole (5). A ripper tool (7) coupled to said toolhead, consists of a working section (8) protruding from the toolhead (4), made at the end of a shank (9) mounted in the longitudinal hole (5) of the toolhead (4). The transversal hole (6) divides the body of the toolhead (4) into a first section (10) that is held in its corresponding seat (3) of the support base (2) and a second section (11) that receives the shank (9) of said ripper tool (7). The transversal hole (6) has a straight region (6') that undercuts the seat (3) of the support base (2) when the first section (10) of the toolhead (4) is coupled into its respective seat (3) of the support base (2)

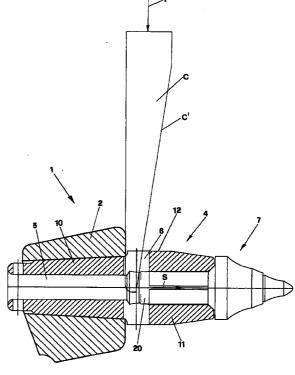


FIG.2



EUROPEAN SEARCH REPORT

Application Number EP 00 10 7176

| Category | Citation of document with in of relevant pass | ndication, where appropriate, ages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.CI.7) |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Y A | US 4 337 980 A (KRE 6 July 1982 (1982-0 * abstract * * figure 14 * * figures 1,2,22,29 | KELER CLAUDE B) 7-06) | 1 2-4 | E02F9/28 |
| Y | EP 0 771 911 A (BIT 7 May 1997 (1997-05 * figures 1-7 * * column 6, line 50 | -07) | 1 | |
| A | US 3 498 677 A (MOR 3 March 1970 (1970- * figures 14,16,17 * column 4, line 75 | 03-03) | * 1 | |
| A | US 4 872 274 A (GIE 10 October 1989 (19 * figure * | RSCH DIETER ET AL) 89-10-10) | 1 | |
| A | DE 85 20 046 U (JÄD 22 August 1985 (198 * figures * | 5-08-22) | | TECHNICAL FIELDS SEARCHED (Int.CI.7) E02F B28D E21C E01C |
| | Place of search | Date of completion of the searc | h | Examiner |
| | THE HAGUE | 20 October 200 | 10 Gut | hmuller, J |
| X : part Y : part doc | ATEGORY OF CITED DOCUMENTS ticularly relevant if taken alone licularly relevant if combined with anolument of the same category inclogical background | E : earlier pate after the filir ther D : document o L : document o | inciple underlying the nt document, but public date litted in the application ited for other reasons | invention ished on, or |

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 10 7176

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-10-2000

| Patent document cited in search report | | | Publication date | Patent family member(s) | | Publication date | |
|----------------------------------------|---------|---|------------------|-------------------------|----------|------------------|------------|
| US | 4337980 | Α | 06-07-1982 | AU | 565475 | В | 17-09-1987 |
| | | | | AU | 3566884 | Α | 28-03-198 |
| | | | | AU | 564079 | В | 30-07-198 |
| | | | | AU | 542087 | В | 07-02-198 |
| | | | | AU | 5961880 | Α | 15-10-198 |
| | | | | CA | | A | 21-06-198 |
| | | | | CA | | A | 27-12-198 |
| | | | | DE | 3026930 | A | 15-10-198 |
| | | | | ZA | 8004731 | | 26-08-198 |
| | | | | GB | 2051184 | A,B | 14-01-198 |
| EP | 0771911 | Α | 07-05-1997 | IT | VI950170 | Α | 30-04-199 |
| | | | | IT | V1960126 | Α | 30-01-199 |
| US | 3498677 | Α | 03-03-1970 | NONE | | | |
| US | 4872274 | A | 10-10-1989 | DE | 3731459 | С | 16-03-198 |
| | | | | NL | 8801971 | Α | 17-04-198 |
| DE | 8520046 | U | 22-08-1985 | NONE | · | | |

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82