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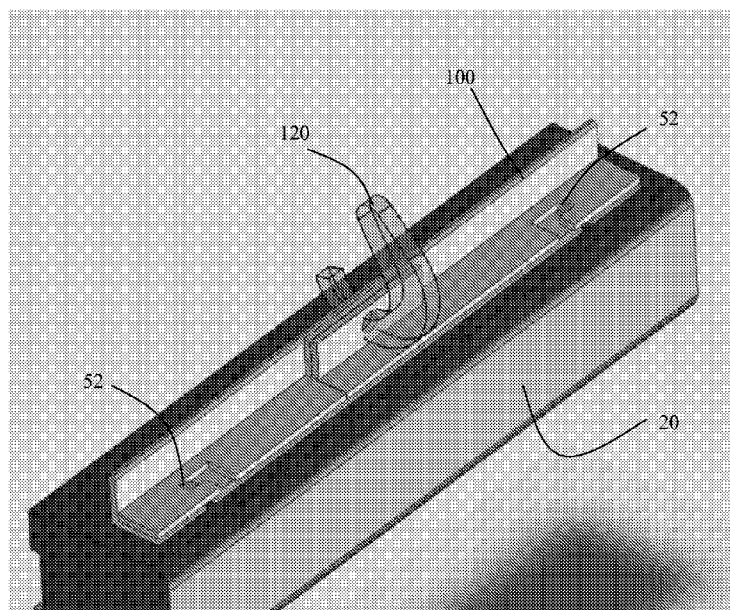
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- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: LIFTER BAR WITH ATTACHMENT POINT FOR HOISTING

Fig 10



(57) Abstract: A lifter bar is includes at least one attachment formation for use in lifting the lifter bar; wherein the at least one attachment formation is embedded in the lifter bar. A method of producing the lifter bar and tools for use in handling the lifter bar are also described.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER		
B02C 17/22 (OCT 2005) B66F 11/00 (OCT 2005)	B02C 13/26 (OCT 2005) B66C 1/34 (OCT 2005)	B02C 17/10 (OCT 2005) B66F 9/18 (OCT 2005)
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPODOC, WPI: IPC B02C, B66F9/18, B66F11 & Keywords (lift, bar, attach, replace, mill, lock) and like terms		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Documents are listed in the continuation of Box C	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 19 June 2012	Date of mailing of the international search report 25 June 2012	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA Email address: pct@ipaustralia.gov.au Facsimile No.: +61 2 6283 7999	Authorized officer Aditya Angadi AUSTRALIAN PATENT OFFICE (ISO 9001 Quality Certified Service) Telephone No. 0399359624	

INTERNATIONAL SEARCH REPORT		International application No.
C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		PCT/AU2011/001617
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 200053388 A1 (GROWTH ASIA AUSTRALIA PTY LTD) 22 February 2001 Abstract, figures 1-4, page 4 lines 10-19	1-13
X	US 4848681 A (ERIKSSON et al.) 18 July 1989 Abstract, figures 1 & 3, column 2 lines 26-42	1-13
A	AU 695779 B2 (EVANS DEAKIN ENGINEERING PTY LTD) 18 July 1996 Abstract, figures 1-5	
A	EP 1181981 A1 (INDUSTRIE BITOSSI S.P.A) 27 February 2002 Abstract, figures 5-6, column 1 paragraphs [0005-[0007], column 3 paragraphs [0018]-[0021]	
X	US 2010/0127109 A1 (MOLLER et al.) 27 May 2010 Abstract, figures 1-2, paragraph [0015]	1-13
X	US 4394982 A (WILSON) 26 July 1983 Abstract, figures 1-6, column 4 lines 6-8	1-13
A	US 4460210 A (MIECHUR) 17 July 1984 Whole document	19-20
A	US 2634156 A (CRIMMEL) 07 April 1953 Whole document	19-20
	WO 2011/130781 A1 (WEIR MINERALS AUSTRALIA LTD) 27 October 2011	
P,X	WO 2011/130781 A1 (WEIR MINERALS AUSTRALIA LTD) 27 October 2011 Abstract, figure 1, page 8 lines 24-27	1-2, 4-9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2011/001617**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See Supplemental Box for Details

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

Supplemental Box

Continuation of: **Box III**

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. This Authority has found that there are different inventions based on the following features that separate the claims into distinct groups:

- Group 1: Claims 1 to 13 are directed to a lifter bar and a method of producing the lifter bar by moulding, said lifter bar having at least one attachment formation embedded in the lifter bar. It is considered that lifter bar having an attachment form embedded in the lifter bar comprises a first distinguishing feature.
- Group 2: Claims 14 to 18 are directed to a tool suitable for hoisting a lifter bar including at least one capture mechanism for capturing an attachment formation of the lifter bar, the attachment formation having a shank portion and an enlarged head portion, the capture mechanism having first member with opening to receive shank portion of the attachment formation and a second member which is slidably movable in relation to the first member to a position in which the second member traps the attachment formation in the opening of the first member. It is considered that the capture mechanism having first and second slidably movable members to trap the attachment formation of a lifter bar comprises a second distinguishing feature.
- Group 3: Claims 19-20 are directed to a lifting device for use in hoisting a lifter bar including a capture portion for capturing an attachment portion of the lifter bar, the attachment portion including a shank portion and an enlarged head portion, the capture portion including a longitudinal aperture for receiving the shank, an attachment portion for attaching a lifting hook to the device wherein the lifting hook obstructs the removal of the attachment formation from the capture portion. It is considered that the lifting device having a capture portion including a longitudinal aperture for receiving the shank portion of the attachment formations and an attachment portion for attaching a lifting hook to the device and when the lifting hook is attached it obstructs removal of the attachment formation from the capture portion comprises a third distinguishing feature.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

When there is no special technical feature common to all the claimed inventions there is no unity of invention.

In the above groups of claims, the identified features may have the potential to make a contribution over the prior art but are not common to all the claimed inventions and therefore cannot provide the required technical relationship.

The only feature common between Group 1 & Group 2 and Group 1 & Group 3 of the claimed inventions which provides a technical relationship among them is a lifter bar having an attachment formation. However this feature does not make a contribution over the prior art cited below.

The only feature common between Group 2 & Group 3 of the claimed inventions which provides a technical relationship among them is a lifter bar having an attachment formation including a shank portion and an enlarged head portion. However this feature does not make a contribution over the prior art cited below.

D1: AU 200053388 A1 (GROWTH ASIA AUSTRALIA PTY LTD) 22 February 2001

D2: US 4848681 A (ERIKSSON et al.) 18 July 1989

D3: AU 695779 B2 (EVANS DEAKIN ENGINEERING PTY LTD) 18 July 1996

D4: EP 1181981 A1 (INDUSTRIE BITOSSI S.P.A) 27 February 2002

Document D1 (figures 1-4, abstract), D2 (figure 1, item 34, figure 3, item 33), D3 (figure 5, item 62, page 5 lines 17-19) and D4 (figures 5-6, column 1 paragraphs [0005]-[0007], column 3 paragraphs [0018]-[0021]) disclose a lifter bar with an attachment formation including a shank portion and an enlarged head portion.

Supplemental Box

Therefore in the light of this document this common feature cannot be a special technical feature. Therefore there is no special technical feature common to all the claimed inventions and the requirements for unity of invention are consequently not satisfied *a posteriori*.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2011/001617

This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document/s Cited in Search Report		Patent Family Member/s	
Publication Number	Publication Date	Publication Number	Publication Date
AU 200053388 A1	22 Feb 2001	None	
US 4848681 A	18 Jul 1989	AU 605794 B2	24 Jan 1991
		AU 7999887 A	08 Dec 1988
		IN 171452 A1	17 Oct 1992
		MX 167676 B	05 Apr 1993
		PH 24373 A	13 Jun 1990
		TR 25311 A	22 Dec 1992
		US 4848681 A	18 Jul 1989
		ZA 8707835 A	28 Nov 1988
AU 695779 B2	18 Jul 1996	AU 695779 B2	20 Aug 1998
		AU 776074 B2	26 Aug 2004
		AU 1002502 A	21 Feb 2002
		AU 4085996 A	18 Jul 1996
EP 1181981 A1	27 Feb 2002	AU 8966201 A	18 Feb 2002
		EP 1181981 A1	27 Feb 2002
		PL 358786 A1	23 Aug 2004
		RU 2003106406 A	10 Aug 2004
		WO 0211890 A1	14 Feb 2002
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		MX 2009013963 A	27 Apr 2010
		PE 04512009 A1	19 Apr 2009
		SE 0701683 A	11 Jan 2009
		US 2010127109 A1	27 May 2010
		US 8152086 B2	10 Apr 2012
		WO 2009008810 A1	15 Jan 2009
US 4394982 A	26 Jul 1983	US 4394982 A	26 Jul 1983
US 4460210 A	17 Jul 1984	US 4460210 A	17 Jul 1984

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

Form PCT/ISA/210 (Family Annex)(July 2009)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2011/001617

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Patent Document/s Cited in Search Report		Patent Family Member/s	
Publication Number	Publication Date	Publication Number	Publication Date
US 2634156 A	07 Apr 1953	US 2634156 A	07 Apr 1953
WO 2011/130781 A1	27 Oct 2011	WO 2011130781 A1	27 Oct 2011
WO 2011/130781 A1	27 Oct 2011	WO 2011130781 A1	27 Oct 2011

End of Annex