### 503881074 06/21/2016

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MASANORI TOJIMA	06/16/2016
MITSUHIRO RYUMAN	06/16/2016

#### **RECEIVING PARTY DATA**

Name:	KOMATSU LTD.	
Street Address:	2-3-6, AKASAKA, MINATO-KU	
City:	TOKYO	
State/Country:	JAPAN	
Postal Code:	107-8414	

## **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	15106902	

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	IUMBER: 1451345.605US9	
NAME OF SUBMITTER:	JAMES E. ARMSTRONG, IV	
SIGNATURE:	/James E. Armstrong, IV/	
DATE SIGNED:	06/21/2016	

**Total Attachments: 1** 

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PATENT 503881074 REEL: 038972 FRAME: 0161

100.4693, 15P. 14-05

# U.S. ASSIGNMENT

IN CONSIDERATION of the sum of One Dollar (\$1,00 inventor(s) (hereinafter, "ASSIGNOR") by (Insert Name(s) & Address(as) of ASSIGNEE(S))	), and of other good and valuable co	nsideration paid to the undersigned
_KOMATSU LTD.		
2-3-6, Akasaka, Minato-ku, Tokyo 107-8414	Japan	
		· · · · · · · · · · · · · · · · · · ·
T T T T T T T T T T T T T T T T T T T		,
		,
(hereinafter, "ASSIGNEE"), the receipt of which is hereby acl ASSIGNEE the entire and exclusive right, title and interest to the (Title of Invention)	chowledged, the undersigned ASSIGNO the invention entitled	R hereby sells, assigns and transfers to
MANAGEMENT SYSTEM AND MANAGING	METHOD OF MINING MAC	HINE
relating to International Patent Application <u>PCT/JP2013/08</u> executed on even date herewith or, if not so executed, was:	35258 and/or for which application for l	Letters Patent of the United States was
(a) executed on;	(Insert date of execution of applica	tilon, if not concurrent)
(b) filed on		
Serial No. /;	Assignee's attorney is hereby a data, when known.	nuthorized to insert in (b) the specified
and to said application and all Letters Patent(s) of the United S substitute, reissue or reexamination application based thereon, including any extensions thereof (collectively, hereinafter, "said The ASSIGNOR agree(s), when requested by said ASSIGN which the ASSIGNEE may deem necessary, desirable or experincluding in the preparation and prosecution of said application reexamination, or public use proceeding, and in any litigation of acts to include but not be limited to executing all papers, include sworm testimony, and obtaining and producing evidence.	for the full term or terms for which the said application(s) and Letters Patent(s)").  THE and without charge to but at the expanding the ending and enforms, maintaining and enforms, and the issuance of said Letters Pater Fother legal proceeding which may arise	case of said ASSIGNEE, to do all acts roing protection for said invention, and in any interference, reissue, or be declared in relation to same such
IN WITNESS WHEREOF, the undersigned inventor(s) has	(have) affixed his/her/their signature(s)	;
1) Masanoni Tojina	Masanori TOJIMA	June 16, 2016
(Signature)	(Type Name)	(Date)
2) Witswhipo Ryuman (Signatura)	Mitsuhiro RYUMAN (Type Name)	June 16, 2016
1.08	(1ype (vame)	(Date)
(Signature)	(Type Name)	(Date)
4)(Signature)	(Type Name)	(Date)
5)	(-5}	(Dutty
( Signature)	(Type Name)	(Date)
6)(Signature)	(Type Name)	(Date)
	1/1	

PATENT REEL: 038972 FRAME: 0162

**RECORDED: 06/21/2016**