

Technical Bulletin 109

BOAR BOLTERS WITH ICM3 VALVE BANK POTENTIAL FOR DEADMAN TO NOT FULLY DELATCH

Over the years Alfabs mining have manufactured some non standard BOAR bolters with JOY ICM3 valve banks.

As standard Alfabs BOAR bolters are fitted with REXROTH Valve banks but in order to maintain commonality between QDS Bolters and Bolters fitted to continuous miners on site some customers have requested to have JOY ICM3 valve banks fitted in place of the standard Rexroth units.

The ICM3 valve banks utilize a "Deadman" valve that latches in an open position when operated, when this Deadman is operated and latched all other functions on the valve bank can be operated. When the Deadman is de-latched (valve closed) all other functions will not operate

An issue has been recently discovered where in certain circumstances the Deadman does not fully de latch instantly as intended when the hydraulic e-stops are deployed.

When the hydraulic e-stops are deployed the load sense signal pressure from the valve bank is dumped and an unloader valve unloads system pressure back to tank but maintains a 10 bar standby pressure to the valve bank for load sensing.

This load sensing pressure can prevent the Deadman from fully de latching as intended. The standby pressure is not enough to operate any functions so the hyd e-stops are still effective, but the setup is not ideal.

Recommendations

An improved circuit upgrade with an additional valve that eliminates standby pressure at the valve bank, drains all pressure lines back to tank and eliminates the Deadman de latching issue when the hyd e-stops are deployed has been designed and tested. Alfabs recommend that owners and end users review their risk assessments and SWP's and consider this upgrade at the next service.

A retro fit kit is available for purchase (Part number 109201) or affected units can be returned to your nearest Alfabs branch for servicing and upgrades.

Notes: - This alert does not affect BOAR bolters that are fitted with Rexroth or Hydraulic controls valve banks.

For any questions or queries please contact your area Branch
Kurri Kurri Branch, Andrew Brook Ph 0407 828 328
Wollongong Branch Manager, Justin Halilovic Ph 0429 770 622
Mackay Branch Manager, Matthew Eatwell Ph 0412 684 665

Document Name	Technical Bulletin 109 REV 0 – QDS Boar Bolter ICM3 Deadman			
Revision Date	13/05/2024	Revision	0	Page 1 of 1

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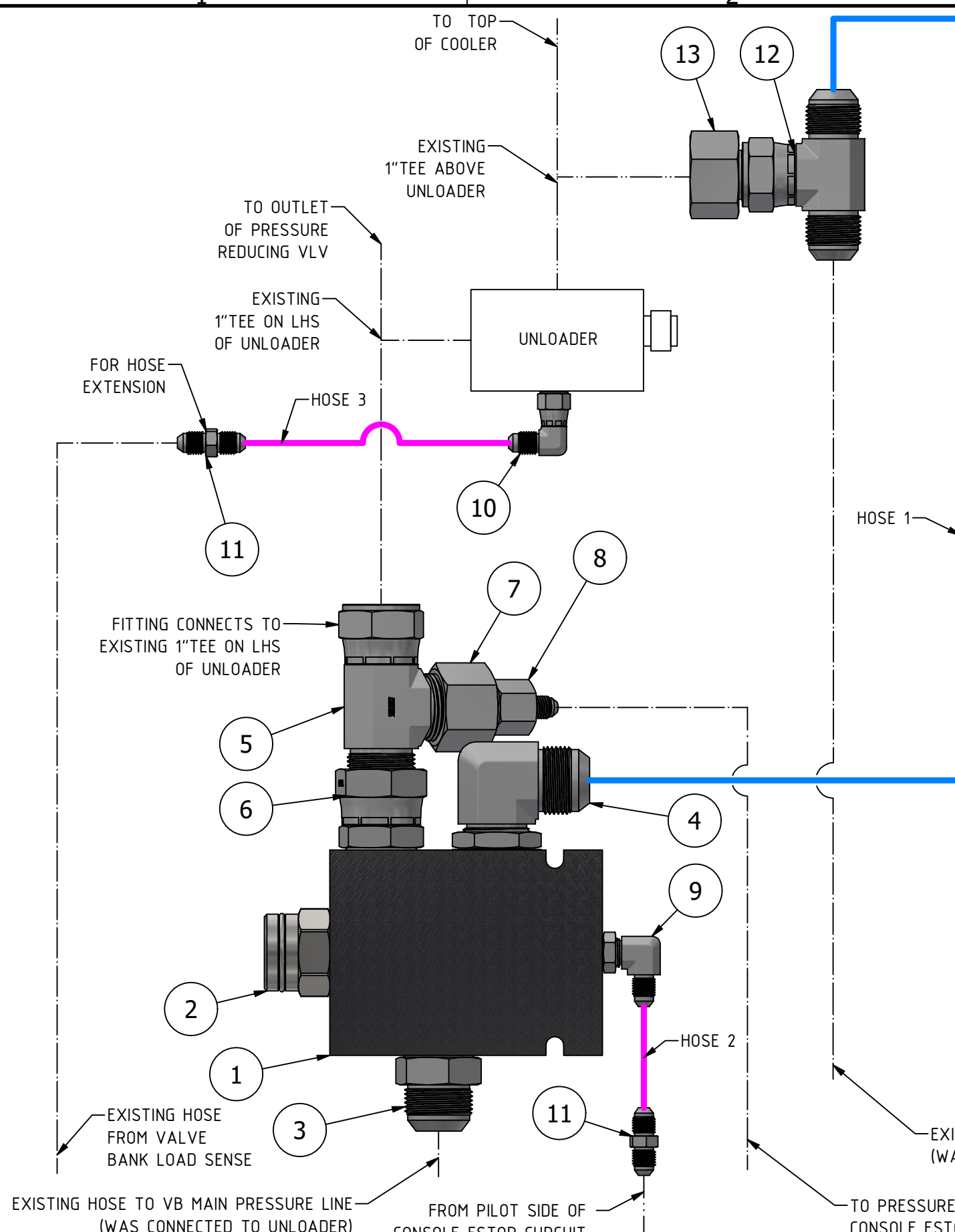
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ITEM	ITEM QTY	DRAWING REF.	DESCRIPTION	OEM	OEM P/N
1	1	70238200P	STEEL BODY	HYDRAFORCE	70238200P
2	1	PD16-40	DIVERTER CARTRIDGE	HYDRAFORCE	PD16-40
3	1	J-21-21	STRAIGHT CONNECTOR - 1-5/16"UNO / 1"JIC	PIRTEK	J-21-21
4	1	CEA-21-21	90 DEG ELBOW - 1-5/16"UNO / 1"JIC	PIRTEK	CEA-21-21
5	1	CMA-21-21-21	TEE - 1"/ 1"/1" JIC - MMF	PIRTEK	CMA-21-21-21
6	1	AAU-21-21	ADAPTOR UNION - 1-5/16"UNO MALE x 1"JIC FEMALE	PIRTEK	AAU-21-21
7	1	580213	TUBE REDUCER - 21 (1") JIC - F x 12 (1/2") JIC - M	PIRTEK	BB-21-12
8	1	BB-12-07	TUBE REDUCER - 12 (1/2") JIC - F x 07 (1/4") JIC - M	PIRTEK	BB-12-07
9	1	CEA-09-07	90 DEG ELBOW - 9/16"UNO / 1/4"JIC	PIRTEK	CEA-09-07
10	1	500251	90 DEG ELBOW 07 JIC M x 07 JIC F	PIRTEK	CAB-07-07
11	2	P-07-07	NIPPLE - 1/4" JIC x 1/4"JIC	PIRTEK	P-07-07
12	1	CBB-17-17-17	TEE - 3/4"/ 3/4"/3/4" JIC - MMF	PIRTEK	CBB-17-17-17
13	1	BB-21-17	TUBE REDUCER - 21 (1") JIC - F x 17 (3/4") JIC - M	PIRTEK	BB-21-17

HOSE LIST				
HOSE ID	SIZE	LENGTH	FROM	TO
1	3/4"	1500	DIVERTER PORT 2	TANK LINE ON TOP OF UNLOADER
2	1/4"	500	DIVERTER PORT 1	PILOT HOSE FROM E-STOP CIRCUIT
3	1/4"	600	UNLOADER PILOT	LOAD SENSE FROM VALVE BANK

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REV	DATE	AMENDMENT DETAILS	BY	CHKD
0	9/05/2024	ISSUED FOR CHECKING	BK	



ALFABS
MINING EQUIPMENT PTY LTD
ABN: 18 099 383 650
152 MITCHELL AVENUE - KURRI KURRI NSW 2327
P. 1300 ALFABS - F. +61 2 49362913
E. mining@alfabs.com.au - W. www.alfabs.com.au

IF IN DOUBT ASK !

FINISHED ITEM MASS:
7.00 kg

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 MANUFACTURING DRAWING

SCALES
1 : 2.5

DRAWN
BK

CHECKED

APPROVED

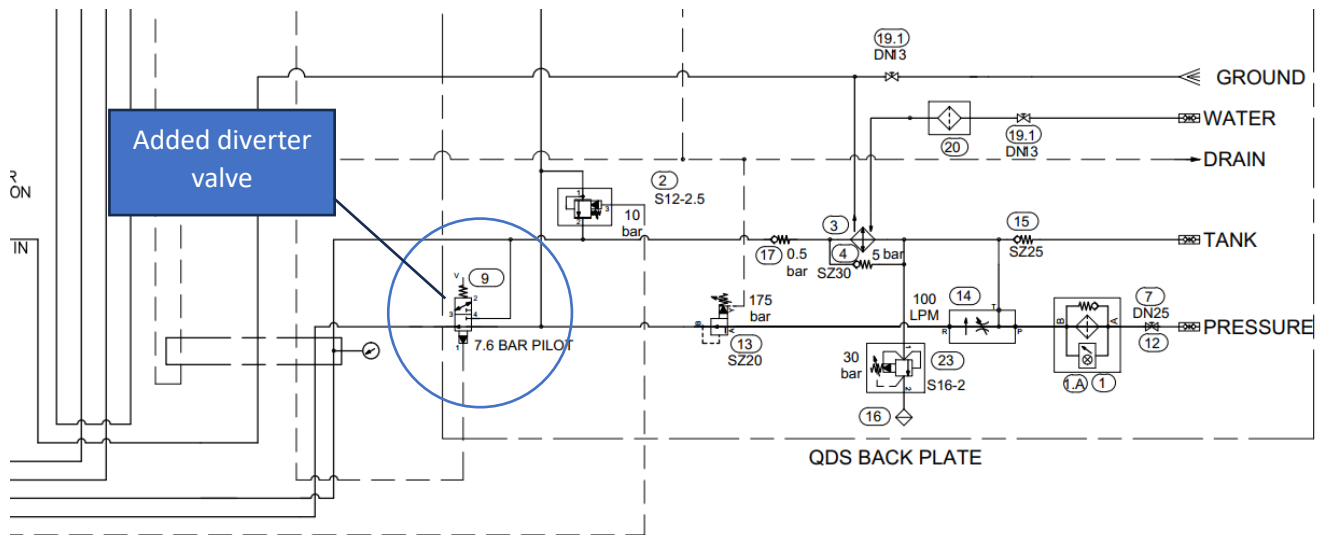
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ICM3 BOAR HYD STOP UPGRADE

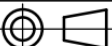
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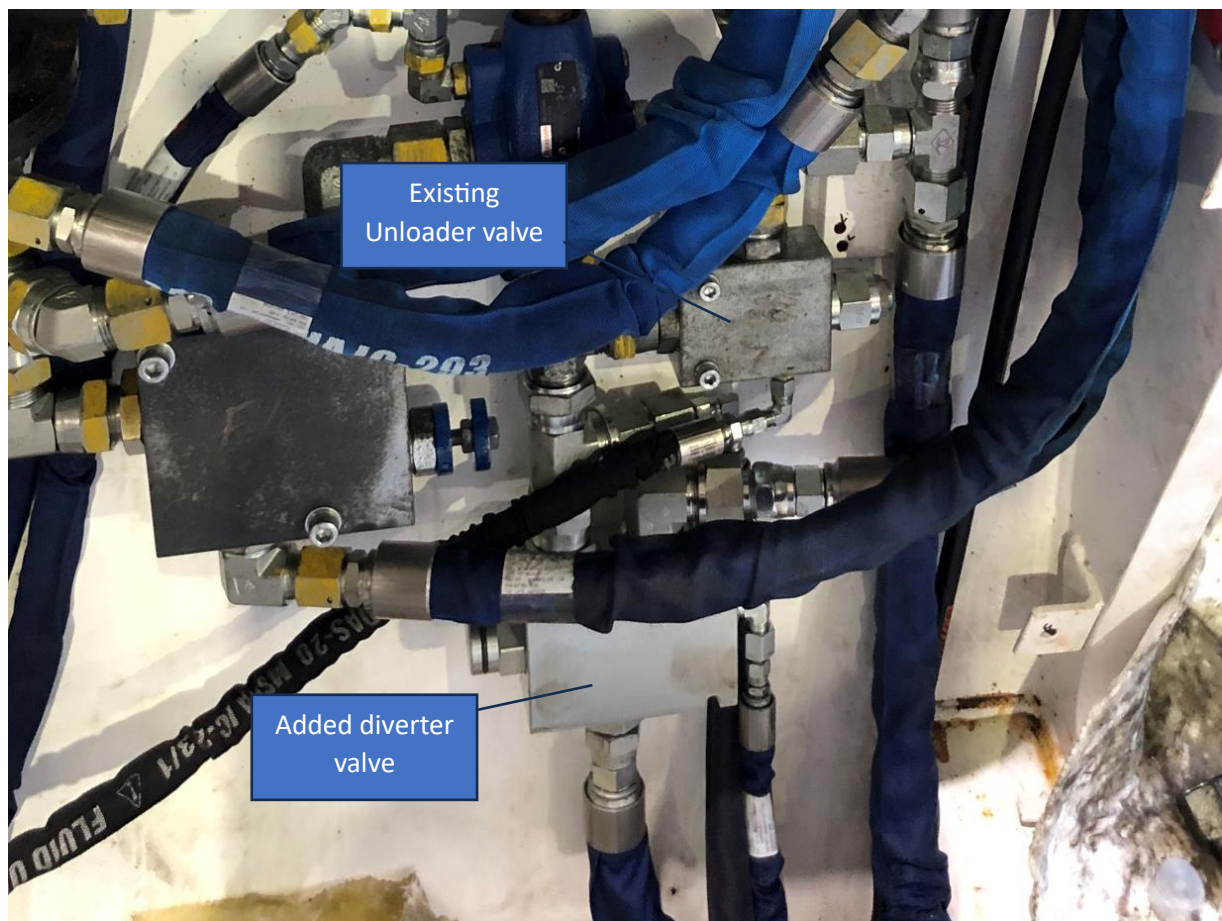
SIZE
A3

DRAWING No.
109201

REV
0



FINISHED ITEM MASS:	SCALES	REF. DRAWING.	2-26683-D
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	MB		
	CHECKED		
 MANUFACTURING DRAWING	APPROVED	SHEET 1 OF 3	
		1ST ISSUE: 28/02/2020	SIZE A3
		DRAWING No. 90009	REV 8



Valving inside of ICM3 BOAR bolter behind QDS Covers