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PROGRAM INFORMATION BULLETIN NO. P07-25

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SUBJECT: Potential Hazardous Condition Caused by Bolts Breaking

on X/P-1628 Electric Motors

#### Who needs this information?

Mine Safety and Health Administration (MSHA) enforcement personnel, mine operators, mine representatives, and independent repair shops need this information.

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#### Why is MSHA issuing this Program Information Bulletin?

MSHA is issuing this Program Information Bulletin (PIB) to alert the mining industry of the potential hazard of bolts breaking that secure the front bearing cartridge on X/P-1628 electric motors. It affects approximately 124 known active motors (two per machine noted in the attached service bulletin) and spare motors with extension numbers X/P-1628-12, 14 and 16. X/P-1628 motors with extension numbers before 12 and with extension numbers 13 and 15 are not affected. Failure of the bolts could compromise the flame path in the front of the motor (the end closest to the clutch). Motors with loose or broken bolts are not permissible.

MSHA has also learned that some independent repair facilities have made repairs that do not meet approval requirements. The repairs usually consist of welding the ¾" diameter bolt holes closed and re-drilling the bearing cartridge and bearing cap to accept ½" diameter bolts. Altering the motor from the original certified design invalidates the MSHA Certification.

#### Where are these electric motors used?

The majority of X/P-1628 motors are used to drive the cutting heads on EIMCO 25M2 and 25M3 DBT America continuous mining machines. However, these motors may also be used in older National Mine Service continuous mining machines for driving cutter heads and traction drives. The X/P-1628 motors may also be used as pump motors for older Fairchild International, Incorporated continuous mining machines.

### What steps should be taken?

Mine operators should check to verify whether X/P-1628 motors in use or stored as spares are labeled with the affected number extensions. The instructions in the attached DBT service bulletin should be followed for any and all X/P-1628 motors with extension numbers 12, 14 and 16. For affected motors that are not utilized on DBT machines, Reliance Electric, the Approval Holder, should be contacted for information. John Kowaleski is the contact person and he can be telephoned at (864) 284-5559.

#### How will motors be identified?

Mine operators are required to keep records for motors that have been checked for loose or broken bolts, but have not been sent out for repair or rebuild. Motors that have been repaired at an authorized repair facility (Reliance or DBT) will have an "X", approximately 3" in size, welded on the motor frame near the conduit box.

#### What is MSHA's authority for this PIB?

The Federal Mine Safety and Health Act of 1977, as amended, 30 U.S.C. § 801 et seq., 30 C.F.R. §§ 18.31, 18.32, and 18.34.

## Who are the MSHA contact persons for this PIB?

Technical Support, Approval and Certification Center Richard O'Hanlon, (304) 547-2316 E-mail: Ohanlon.Richard@dol.gov

Coal Mine Safety and Health Salwa El-Bassioni, (202) 693-9525 E-mail: El-Bassioni.Salwa@dol.gov

Metal and Nonmetal Safety and Health Neal H. Merrifield, (202) 693-9640 E-mail: Merrifield.Neal@dol.gov

## <u>Is this PIB available on the internet?</u>

This PIB may be viewed on the World Wide Web by accessing the MSHA home page (<a href="http://www.msha.gov">http://www.msha.gov</a>) and choosing "Compliance Info" and "Program Information Bulletins."

## Who will receive this PIB?

MSHA CMS&H and MNM inspectors Underground mine operators Independent Repair facilities Special Interest Groups Approval Holders



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# **Bulletin**

## Cutter Motor X/P-1628, Part Number 288904, 297633, 341078

DBT America is issuing this bulletin to alert the mining industry of the potential issue of bolts breaking that secure the front bearing cartridge on X/P-1628 electric motors. It affects motors with extension numbers X/P1628-12, -14, and -16. The failure of the bolts could compromise the flame path in the front of the motor. If the flame path is compromised, the explosion proof integrity of the enclosure will also be compromised.

The motors affected are used on 25M2 and 25M3 model DBT America Continuous Miners.

Mine operators who determine that a machine in their mine uses one of the affected motors must check the front bearing cartridge bolts for breakage, looseness, and proper size, in accordance with the drawings on file at MSHA. If any of the bolts are broken or are not the correct size, the motor must be removed from service and returned to an authorized DBT America service facility for repair. If any of the bolts are loose, they should be inspected for damage and replaced as necessary. Motors with loose bolts show the symptoms of an accelerated failure rate and a DBT America representative should be notified.

Attached is a list of continuous miners which our records indicate are affected by this issue. All customers on this list should receive a copy of this bulletin.

Special Note: Customers who elect to send their motors to non-OEM motor rebuild facilities are responsible to notify those motor repair facilities of this issue, and to verify that any motors previously repaired by these shops, or currently in for repairs, meet all current approval requirements.

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Motors that have been repaired by an authorized DBT America facility will be marked with an "X" bead weld on conduit box-side of the motor frame, on the opposite end of the motor. The "X" will be approximately 3 inches in size.

Name 1	Name 2	Serial Number	Product Model
CONSOL ENERGY	BUCHANAN #1 MINE	70880074R	25M2
CONSOL ENERGY	BUCHANAN #1 MINE	70880154R	25M2
CONSOL ENERGY	BUCHANAN #1 MINE	#	25M2
DICKENSON-RUSSELL CO	ROARING FORK #3 DEEP MINE	0	25M2
PARAMONT COAL CO VIR	VICC #3 MINE	70880213	25M2
PARAMONT COAL CO VIR	VICC #3 MINE	70880211R	25M2
CONSOLIDATION COAL C	MILES BRANCH MINE	70880163R	25M2
BROOKS RUN MINING CO	CUCUMBER MINE	70880105R	25M2
BROOKS RUN MINING CO	CUCUMBER MINE	70880146R	25M2
BROOKS RUN MINING CO	MINE #5	70880102RR	25M2
BROOKS RUN MINING CO	MINE #5	70880212R	25M2
BROOKS RUN MINING CO	MINE #10A	70880227	25M2
BROOKS RUN MINING CO	MINE #10A	70880249	25M2
BROOKS RUN MINING CO	MINE #10A	70880191R	25M2
LITTLE EAGLE COAL CO	LICK BRANCH MINE	70880199	25M2
PEACHTREE RIDGE MINI	PEACHTREE RIDGE MINE	#	25M2
WOLF RUN MINING CO -	SENTINEL MINE	158554	25M2
WOLF RUN MINING CO -	SENTINEL MINE	158555	25M2
CONSOL ENERGY	JONES FORK MINE	70880215R	25M2
COMMONWEALTH MINING	MINE NO 1	70880117R	25M2
JARISA INC	ROCKHOUSE E-3 MINE	70880138R	25M2
JARISA INC	ROCKHOUSE E-3 MINE	#	25M2
ICG HAZARD LLC	FLINT RIDGE MINE #1	151875	25M2
M C MINING LLC	EXCEL #3A MINE	70880153R	25M2
M C MINING LLC	EXCEL #3A MINE	70880162R	25M2

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M C MINING LLC	EXCEL #3A MINE	70880176R	25M2
EXCEL MINING LLC	#3 MINE	70880120R	25M2
EXCEL MINING LLC	#3 MINE	70880141R	25M2
EXCEL MINING LLC	#3 MINE	70880214R	25M2
Name 1	Name 2	Serial Number	Product Model
EXCEL MINING LLC	#3 MINE	70880233R	25M2
SAPPHIRE COAL CO	UZ MINE	117027	25M2
SAPPHIRE COAL CO	UZ MINE	117046	25M2
PERRY COUNTY COAL CO	HAZARD E-3 MINE	126467	25M2
PERRY COUNTY COAL CO	HAZARD E-3 MINE	126472	25M2
PERRY COUNTY COAL CO	HAZARD E-3 MINE	126473	25M2
SAPPHIRE COAL CO	SANDLICK MINE	117027	25M2
PERRY COUNTY COAL CO	E4-1 MINE (BEAR BRANCH MINE)	111726	25M2
PERRY COUNTY COAL CO	E4-1 MINE (BEAR BRANCH MINE)	126469	25M2
HIDDEN SPLENDOR RESO	HORIZON MINE	70880198/99	25M2
INTREPID POTASH-NEW	WEST MINE	#	25M2
COAL RIVER MINING LL	TINY CREEK #2 MINE	70880248	25M2
POWELL MOUNTAIN COAL	WAX MINE	70880107R	25M2
EXETER COAL CORP	MINE #1	138960	25M2
EXETER COAL CORP	MINE #1	#	25M2
MOSAIC POTASH CARLSB	#5 SHAFT SITE	70880197	25M2P
INTREPID POTASH-NEW	WEST MINE	#	25M2P
INTREPID POTASH-NEW	EAST MINE	70880130	25M2P
INTREPID POTASH-NEW	EAST MINE	70880131	25M2P
INTREPID POTASH-NEW	EAST MINE	70880132	25M2P
INTREPID POTASH-NEW	EAST MINE	70880133	25M2P
INTREPID POTASH-NEW	EAST MINE	70880155	25M2P
INTREPID POTASH-NEW	EAST MINE	70880156	25M2P
INTREPID POTASH-NEW	EAST MINE	70880067R	25M2P
BRIDGER COAL CO	BRIDGER COAL MINE	70880167	25M3
BUCKINGHAM COAL CO I	BUCKINGHAM COAL MINE	70880223	25M3
BUCKINGHAM COAL CO I	BUCKINGHAM COAL MINE	70880224	25M3
LITTLE EAGLE COAL CO	LITTLE EAGLE MINE	148462	25M3

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COMMONWEALTH MINING	MINE NO 1	70880115	25M3
Name 1	Name 2	Serial Number	Product Model
PARAMONT COAL CO VIR	VICC #6 MINE	99503	25M3L
PARAMONT COAL CO VIR	MINE #10	70880254	25M3L
PARAMONT COAL CO VIR	MINE #10	70880268	25M3L
WASHINGTON TRU SOLUT	WIPP SITE	70880210	25M3P

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