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PROGRAM INFORMATION BULLETIN NO. P11-44

FROM: LINDA F. ZEILER
Acting Director of Technical Support

KEVIN G. STRICKLIN
Administrator for
Coal Mine Safety and Health

NEAL H. MERRIFIELD
Administrator for Metal and Nonmetal
Mine Safety and Health

SUBJECT: Reissue of P07-15 - Potential Safety Hazard on Permissible Mobile Diesel-Powered Transportation Equipment with Sandvik (formerly EJC Mining Equipment, Inc.) Wet Scrubber Systems

Who needs this information?
Mine Safety and Health Administration (MSHA) personnel, underground coal mine operators, underground metal and nonmetal operators, miners' representatives, and repair shop facilities should have this information.

Why is MSHA issuing this Program Information Bulletin?
This Program Information Bulletin (PIB) is issued to inform mine operators of a potential safety hazard on the Sandvik (formerly EJC Mining Equipment, Inc.) wet scrubber system. This PIB also provides information regarding mandatory periodic inspection of the wet scrubber system insert.

What permissible mobile diesel-powered transportation equipment does this PIB address?
This PIB addresses permissible mobile diesel-powered transportation equipment that uses a permissible power package (safety component system) manufactured by Sandvik. The power package is equipped with a wet scrubber system that contains an

insert mounted inside an exhaust conditioner enclosure. The table below provides the MSHA permissible equipment approval number and the corresponding power package Part 36 certification number or Part 7 Subpart F approval number.

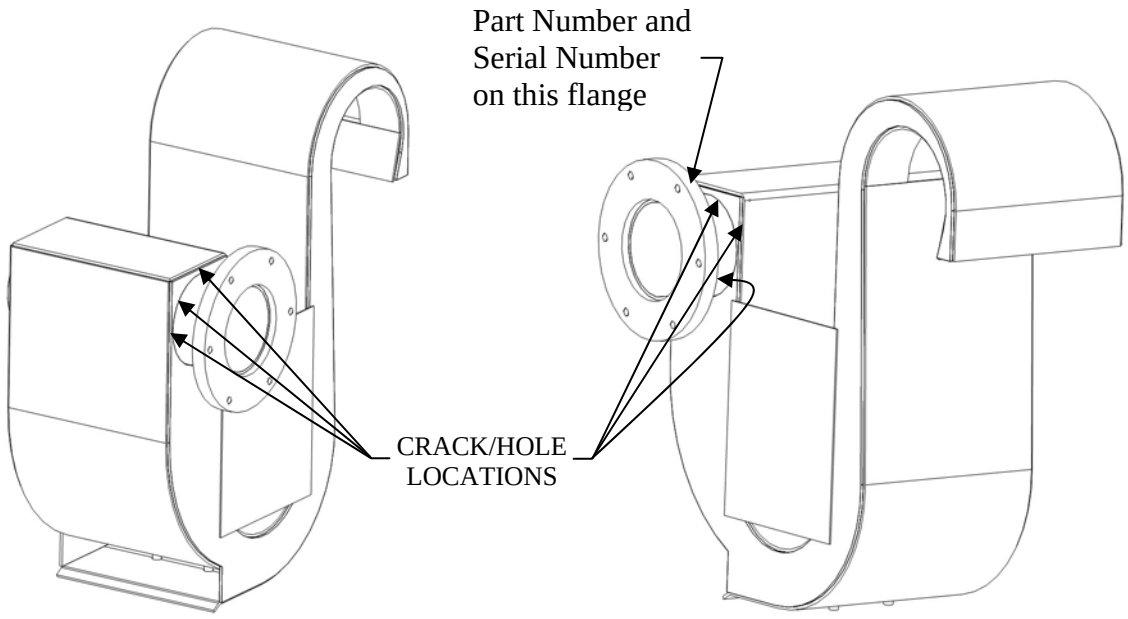
PERMISSIBLE EQUIPMENT APPROVAL NO.	POWER PACKAGE CERTIFICATION NO.	PERMISSIBLE EQUIPMENT MODEL NO.	EQUIPMENT TYPE
31-103	31/D101	936M	SHIELD HAULER/SCOOP
31-110	31/D108	935-2NL	SCOOP
31-117	31/D111	975A	UTILITY TRACTOR
31-120	31/D111	975A	PERSONNEL CARRIER
31-121	31/D110	80LHD	LHD
31-124	31/D111	G600U	GRADER
31-125	31/D101	EJC-130	LHD
31-126	31/D111	975A	BOOM TRUCK
31-128	31/D116	544-MV4	UTILITY VEHICLE
31-131	31/D118	975A	LUBE TRUCK
31-132	31/D111	975A	ROCKDUSTER
31-135	31/D120	980L31	FIFTH WHEEL TRACTOR
31-137	31/D111	975A	LUBE TRUCK
31-202	31/D108	935-2NL	LHD
31-203	31/D111	975A	FIFTH WHEEL UTILITY TRUCK
31-204	31/D111	975A	PERSONNEL CARRIER
31-205	31/D111	975A	BOOM TRUCK
31-206	31/D111	975A	LUBE TRUCK
31-207	31/D101	936M	SHIELD HAULER/SCOOP
31-208	31/D101	130-21 LHD	LHD
31-211	31/D120	980L31	FIFTH WHEEL TRACTOR
31-216	31/D111	975A	ROCKDUSTER
31-217	31/D110	EJC80	LHD
31-228	31/D101	915E	LHD
31-26-3	31/D101	915E	LHD
36C-002	7F-007	913	LHD
36C-003	7F-009	980L31	FIFTH WHEEL TRACTOR
36C-004	7F-013	975A	LUBE TRUCK
36C-005	7F-017	936M	SHIELD HAULER/SCOOP
36C-006	7F-017	130-21	LHD
36C-008	7F-007	PEC22	ROOF DRILL

What is the potential safety hazard with this permissible mobile diesel-powered transportation equipment with a Sandvik power package?

A weld bead crack failure may allow flames, sparks, or hot diesel engine exhaust gas to bypass the flame proofing, spark arresting, and engine exhaust gas cooling effects of the scrubber system and enter the mine atmosphere.

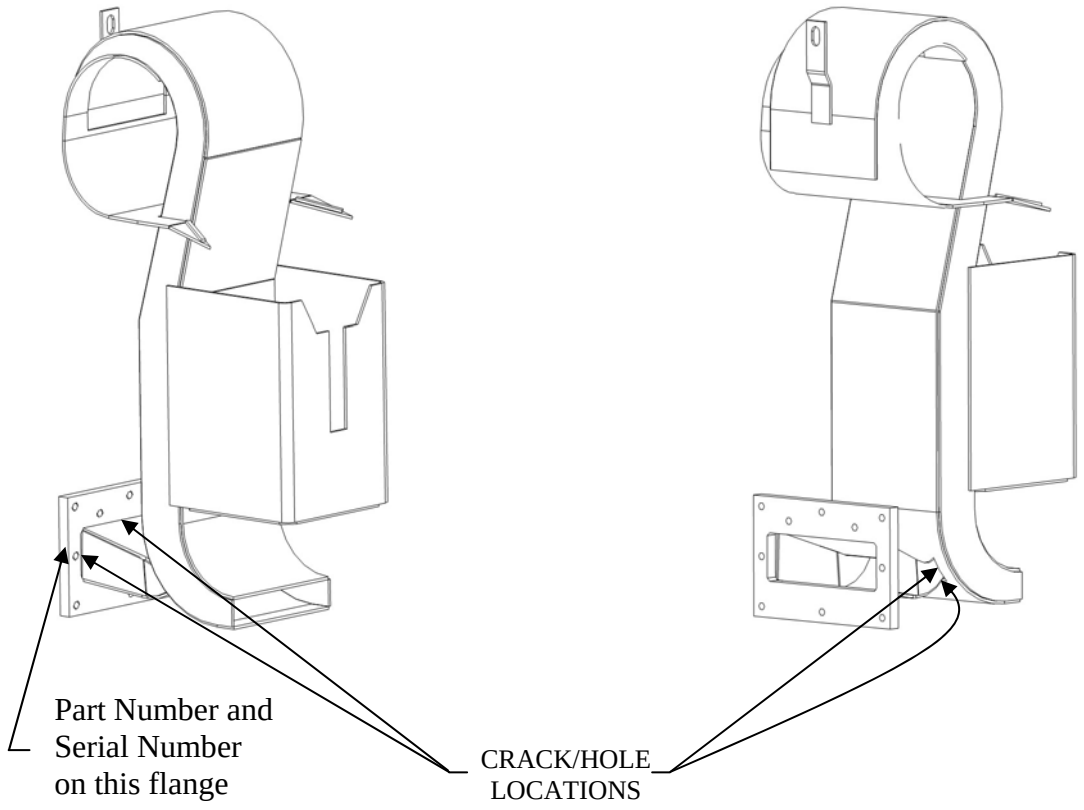
The scrubber system consists of an insert that is mounted inside an exhaust conditioner enclosure (tank partially filled with water). The crack failure developed in and near the inlet flange weld bead of the insert. Some of the weld bead cracks enlarged enough to produce a hole in the weld and surrounding material. The Sandvik wet scrubber system is used on permissible mobile diesel-powered transportation equipment to prevent propagation of flame or discharge of heated particles to the surrounding mine atmosphere and to cool the diesel engine exhaust gas at the discharge from the exhaust conditioner. The wet scrubber system is required to cool the diesel engine exhaust gas to a maximum of 170 degrees Fahrenheit per 30 C.F.R. §§ 7.98(s)(4)(i) and 36.25(c), and arrest spark and flame per 30 C.F.R. § 7.98(s)(2) and 30 C.F.R. § 36.25(b)(3).

Figure No. 1 and Figure No. 2 below can be referenced for a general view of the wet scrubber insert and the location of the cracks/holes that have been found on inserts in the field.



Wet Scrubber Insert used on the following Equipment Approval Numbers: 31-103, 31-110, 31-125, 31-135, 31-202, 31-207, 31-208, 31-211, 31-228, 31-26-3, 36C-003, 36C-005, 36C-006

Figure No. 1



Wet Scrubber Insert used on the following Equipment Approval Numbers: 31-121, 31-117, 31-217, 31-120, 31-124, 31-126, 31-128, 31-131, 31-132, 31-137, 31-203, 31-204, 31-205, 31-206, 31-216, 36C-002, 36C-004, 36C-008

Figure No. 2

What action is required on the Sandvik wet scrubber inserts?

All permissible mobile diesel-powered transportation equipment with a Sandvik wet scrubber system must be inspected for weld failure in the wet scrubber insert. The insert inspection should be conducted during the next scheduled weekly maintenance examination. Inserts that are found defective must be replaced with an acceptable insert. Sandvik has issued a technical bulletin to inform their customers on the proper procedure to remove and inspect the wet scrubber insert. See Attachment to view Sandvik's technical bulletin.

How often must the wet scrubber inserts be inspected?

Inserts that are inspected and found acceptable must be inspected on a quarterly basis until otherwise indicated on the Power System Checklist Addendum. New replacement inserts must be inspected after one year in operation. After this first year inspection, the inserts must be inspected quarterly until otherwise indicated on the

Power System Checklist Addendum. Sandvik has included, as an addendum, an insert inspection requirement to their Power System Checklist.

Inspections conducted in accordance with the Power System Checklist Addendum that identify a defective insert (crack, hole, or other damage) must be recorded to comply with 30 C.F.R. § 75.1914(f)(2).

The results of the initial and subsequent inspections should be sent to Sandvik. Sandvik and MSHA will monitor the inspection results to track the performance of the inserts. Based on the inspection results, Sandvik and MSHA will determine if the inspection frequency should be changed and if additional corrective action is needed.

The inspection results sent to Sandvik should include the permissible equipment approval number; type; model number; and identification number (serial number); the wet scrubber insert part number; serial number; and if support brackets are installed on the insert.

Who can I contact at Sandvik?

Adrian Gillies
Sandvik Mining and Construction Canada, Inc.
4445 Fairview Street,
Burlington, Ontario
Canada L7L 2A4
Phone: (905) 333-2338
Fax: (905) 632-1344
adrian.gillies@sandvik.com

How can the addendum to the Power System Checklist be obtained?

The Power System Checklist Addendums can be obtained by any of the following methods:

- Click on one of the attachments for the applicable equipment approval number.
- The addendums are available on MSHA's website:
  http://www.msha.gov/s&hinfo/diesel.htm

  Under General Information choose Sandvik Power System Checklist Addendums.
- Contact one of the Approval and Certification Center (A&CC) contacts below.

- Contact Sandvik. In addition, Sandvik is responsible for distributing the addendum to their customers.

Power System Checklist Addendums

PERMISSIBLE EQUIPMENT APPROVAL NUMBER	MODEL NUMBER
See Attachment: 31-117, 31-120, 31-121, 31-124, 31-126, 31-128, 31-132, 31-137, 31-203, 31-204, 31-205, 31-206, 31-216, 31-217, 36C-002, 36C-004, 36C-008	975A 913 PEC 22 80 544-MV4 G600U
See Attachment: 31-103, 31-125, 31-207, 31-208, 31-26-3, 31-228, 36C-005, 36C-006	915E 936M 130
See Attachment: 31-110, 31-131, 31-202	935-2NL 975A (Isuzu)
See Attachment: 31-135, 31-211, 36C-003	980L

Can defective inserts be repaired?

Defective inserts must not be repaired. A defective insert must be replaced with an acceptable insert. A repaired insert may not cool the diesel engine exhaust gas or arrest spark and flame. The Sandvik technical bulletin provides contact information for Sandvik authorized distributors.

Permissible mobile diesel-powered transportation equipment with a Sandvik wet scrubber system that contains a repaired insert, or an insert with cracks, holes, or other damage, WILL NOT be considered approved by MSHA.

How are existing and new replacement inserts identified?

Existing inserts are identified with the "old" insert part number. The old insert part numbers are provided in the Sandvik technical bulletin. New replacement inserts will be identified with a new part number as shown in the Sandvik technical bulletin. In addition, the new replacement inserts will be identified with a serial number with the following format:

"XXXX-XX"

Example: 1234-07, where 1234 is a unique tracking number and 07 is the year of manufacture. The part number and serial number for new replacement inserts are

located on the inlet flange of the insert as shown in Figure No. 1 and Figure No. 2 above.

Are the new replacement inserts different from the old inserts?
Sandvik submitted a design modification to correct the weld crack problem to the A&CC for approval. The design modification has been evaluated and meets MSHA requirements for permissible power packages (safety component systems).

What is the background for this PIB?
The A&CC discovered weld cracks in a Sandvik wet scrubber insert during an equipment field modification evaluation.

The A&CC subsequently notified MSHA enforcement of the potential safety hazard and requested the inserts be visually inspected during the next scheduled weekly maintenance examination. The insert inspection revealed that 22% of the inspected inserts were defective with cracks and/or holes.

What is MSHA's authority for this PIB?
The Federal Mine Safety and Health Act of 1977; 30 C.F.R. §§ 7.98(s)(4)(i); 36.25(c); 7.98(s)(2); 36.25(b)(3); and 75.1914(f)(2).

Internet Availability
This PIB may be viewed on the Internet by accessing MSHA's home page at (http://www.msha.gov) and then choosing Compliance Info, and Program Information Bulletins.

Who are the MSHA contact persons for this PIB?
Coal Mine Safety and Health, Safety Division
Charles Carpenter, (202) 693-9532
E-mail: carpenter.charles@dol.gov

Metal and Nonmetal Safety and Health
Neal H. Merrifield, (202) 693-9600
E-mail: merrifield.neal@dol.gov

Technical Support, Approval and Certification Center
Gary Clark, (304) 547-2068
E-mail: clark.gary@dol.gov

Technical Support, Approval and Certification Center
Steve Cole, (304) 547-2304
E-mail: cole.stephen@dol.gov

Who will receive this PIB?
MSHA Program Policy Manual Holders
Miners' Representatives
Underground Mine Operators
Manufacturers of Mine Equipment and Mining Products
Special Interest Groups

Attachments

- Sandvik's technical bulletin

Sandvik Power System Checklist Addendums relating to Permissible Equipment Approval Numbers:

- 31-117, 31-120, 31-121, 31-124, 31-126, 31-128, 31-132, 31-137, 31-203, 31-204, 31-205, 31-206, 31-216, 31-217, 36C-002, 36C-004, 36C-008
- 31-103, 31-125, 31-207, 31-208, 31-26-3, 31-228, 36C-005, 36C-006
- 31-110, 31-131, 31-202
- 31-135, 31-211, 36C-003