

the denial notification letter, that the requester may incur fees as a result of processing the request. In the denial notification letter, the Council shall advise the requester that the Council will not proceed to process the request further unless the requester, in writing, directs the Council to do so and either agrees to pay any fees that may apply to processing the request or specifies an upper limit (of not less than \$25) that the requester is willing to pay to process the request. If the Council does not receive this written direction and agreement/specification within thirty (30) days of the date of the denial notification letter, then the Council shall deem the FOIA request to be withdrawn.

(7) *Appeals of denials of requests to reduce or waive fees.* If the Council denies a request to reduce or waive fees, then the requester shall have the right to submit an appeal of the denial determination in accordance with § 1301.11. The Council shall communicate this appeal right as part of its written notification to the requester denying the fee reduction or waiver request. The requester shall clearly mark its appeal request and any envelope that encloses it with the words "Appeal for Fee Reduction/Waiver."

(g) *Notice of estimated fees; advance payments.* (1) When the Council estimates the fees for processing a request will exceed the limit set by the requester, and that amount is less than \$250, the Council shall notify the requester of the estimated costs, broken down by search, review and duplication fees. The requester must provide an agreement to pay the estimated costs, except that the requester may reformulate the request in an attempt to reduce the estimated fees.

(2) If the requester fails to state a limit and the costs are estimated to exceed \$250, the requester shall be notified of the estimated costs, broken down by search, review and duplication fees, and must pay such amount prior to the processing of the request, or provide satisfactory assurance of full payment if the requester has a history of prompt payment of FOIA fees. Alternatively, the requester may reformulate the request in such a way as to constitute a request for responsive records at a reduced fee.

(3) The Council reserves the right to request advance payment after a request is processed and before records are released.

(4) If a requester previously has failed to pay a fee within thirty (30) calendar days of the date of the billing, the requester shall be required to pay the full amount owed plus any applicable interest, and to make an advance

payment of the full amount of the estimated fee before the Council begins to process a new request or the pending request.

(h) *Form of payment.* Payment may be made by check or money order paid to the Treasurer of the United States.

(i) *Charging interest.* The Council may charge interest on any unpaid bill starting on the 31st day following the date of billing the requester. Interest charges will be assessed at the rate provided in 31 U.S.C. 3717 and will accrue from the date of the billing until payment is received by the Council. The Council will follow the provisions of the Debt Collection Act of 1982 (Pub. L. 97-365, 96 Stat. 1749), as amended, and its administrative procedures, including the use of consumer reporting agencies, collection agencies, and offset.

(j) *Aggregating requests.* If the Council reasonably determines that a requester or a group of requesters acting together is attempting to divide a request into a series of requests for the purpose of avoiding fees, the Council may aggregate those requests and charge accordingly. The Council may presume that multiple requests involving related matters submitted within a thirty (30) calendar day period have been made in order to avoid fees. The Council shall not aggregate multiple requests involving unrelated matters.

Dated: November 16, 2017.

Eric A. Froman,

Executive Director, Financial Stability Oversight Council.

[FR Doc. 2017-25386 Filed 11-22-17; 8:45 am]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0982; Product Identifier 2017-SW-009-AD; Amendment 39-19102; AD 2017-23-08]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2014-24-02 for Agusta S.p.A. (Agusta) Model AB139 and AW139 helicopters. AD 2014-24-02 required repetitively inspecting the main rotor (M/R) rotating

scissors, removing certain lower half scissor spherical bearings (bearings) from service, and installing a special nut. This new AD revises the inspection requirements and requires replacing the bearings. This AD is prompted by a new report of a dislodged bearing of an M/R rotating scissor. The actions of this AD are intended to correct an unsafe condition on these products.

DATES: This AD becomes effective December 11, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of December 11, 2017.

We must receive comments on this AD by January 23, 2018.

ADDRESSES: You may send comments by any of the following methods:

- *Federal eRulemaking Docket:* Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- *Fax:* 202-493-2251.

- *Mail:* Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001.

- *Hand Delivery:* Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0982; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any information incorporated by reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G. Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also

available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA–2017–0982.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222–5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

We issued AD 2014–24–02, Amendment 39–18035 (79 FR 70785, November 28, 2014) (AD 2014–24–02), for Agusta S.p.A. Model AB139 and AW139 helicopters with a M/R rotating scissors part number (P/N) 3G6230A00733 with a bearing P/N 3G6230V00654 installed. AD 2014–24–02 required repetitive inspections of the M/R rotating scissors for damage and play of the bearing and replacing the nut with a special nut, P/N 3G6230A06851, which lengthens the compliance time for repetitive inspections. AD 2014–24–02 was prompted by AD No. 2014–0215–E, dated September 24, 2014, issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA AD No. 2014–0215–E corrected an unsafe condition for the AgustaWestland S.p.A and AgustaWestland Philadelphia Corporation Model AB139 and AW139

helicopters. EASA advised of reports of early excessive play in the bearings and a report of a chipped bearing liner.

Actions Since AD 2014–24–02 Was Issued

Since we issued AD 2014–24–02, EASA issued AD No. 2017–0028–E, dated February 15, 2017, which supersedes AD No. 2014–0215–E. EASA AD No. 2017–0028–E was prompted by a report of a dislodged bearing P/N 3G6230V00654 with special nut P/N 3G6230A06851 installed. EASA advises that all bearings P/N 3G6230V00654 could prematurely damage or wear, including those with the special nut. For these reasons, EASA AD No. 2017–0028–E partially retains the repetitive inspections and requires replacement of the bearing with improved bearing P/N 3G6230V00655 as terminating action for the inspections.

Additionally, Agusta S.p.A. has changed its name to Leonardo Helicopters. Because the FAA is in the process of updating this name change on its FAA type certificate and it is not yet effective, this AD specifies Agusta S.p.A. as the type certificate holder.

FAA's Determination

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

Related Service Information Under 1 CFR Part 51

We reviewed Leonardo Helicopters (previously Agusta S.p.A.) Alert Bollettino Tecnico No. 139–392, Revision A, dated February 14, 2017. This service information specifies repetitively inspecting the M/R rotating scissors to monitor the bearings and replacing the bearing with a new part-numbered bearing.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Other Related Service Information

We reviewed Leonardo Helicopters AW139 IETP Document Code AMP–39–C–62–31–00–00A–31AC–A, Rotating control installation—Fixed swashplate and rotating scissors—Detailed

inspection, Issue 29, dated July 31, 2017. This service information describes procedures for a detailed inspection of the fixed swashplate and rotating scissors.

AD Requirements

This new AD reduces the inspection interval for some M/R rotating scissors, clarifies the inspection for damage, adds an inspection for movement of the bearing out of its seat, and retains the inspection for play of the bearing. Depending on the outcome of these inspections, this AD requires replacing the bearing with an improved bearing, replacing the rotating scissor attachment flange with a certain part-numbered rotating scissor attachment flange, and replacing the nut with a certain part-numbered special nut. If not done as a result of the inspections, this AD also requires replacing each nut with a certain part-numbered special nut.

Differences Between This AD and the EASA AD

The EASA AD requires replacing each bearing P/N 3G6230V00654 with bearing P/N 3G6230V00655 within 12 months; whereas, this AD does not. We plan to publish a notice of proposed rulemaking to give the public an opportunity to comment on this long-term requirement.

Costs of Compliance

We estimate that this AD affects 103 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour. Inspecting for bearing liner wear, seat movement, and play will take about 1 work-hour for a cost of \$85 per helicopter and \$8,755 for the U.S. fleet per inspection cycle. Replacing a bearing will take 2 work-hours and parts will cost \$892 for a cost of \$1,062 per bearing. Replacing a rotating scissor attachment flange will cost \$20,629 for parts and no additional labor. Installing two special nuts on a helicopter will take 1 work-hour and parts will cost \$682 for a cost of \$767 helicopter and \$79,001 for the U.S. fleet.

According to Leonardo Helicopter's service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Leonardo Helicopter. Accordingly, we have included all costs in our cost estimate.

FAA's Justification and Determination of the Effective Date

Providing an opportunity for public comments prior to adopting these AD

requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the unsafe condition can adversely affect the controllability of the helicopter and some of the required corrective actions must be accomplished within 5 hours time-in-service and thereafter every 24 hours. Other corrective actions in this AD must be accomplished within 100 hours time-in-service; however, these helicopters are generally high-usage aircraft and could reach this compliance time within a very short calendar time.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2014–24–02, Amendment 39–18035 (79 FR 70785, November 28, 2014), and adding the following new AD:

2017–23–08 Agusta S.p.A.: Amendment 39–19102; Docket No. FAA–2017–0982; Product Identifier 2017–SW–009–AD.

(a) Applicability

This AD applies to Model AB139 and AW139 helicopters with main rotor (M/R) rotating scissors with a lower half scissor spherical bearing (bearing) P/N 3G6230V00654 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as excessive play of the bearing in the M/R rotating scissors. This condition could result in failure of the M/R rotating scissors and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2014–24–02, Amendment 39–18035 (79 FR 70785, November 28, 2014).

(d) Effective Date

This AD becomes effective December 11, 2017.

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

(1) Within 5 hours time-in-service (TIS), and thereafter before the first flight of each

day or at intervals not exceeding 24-clock hours, whichever occurs later:

(i) Using a magnifying glass and a flashlight, visually inspect each bearing for wear of the bearing liner. Some examples of wear are shown in Figures 4 through 8 of Leonardo Helicopters Alert Bollettino Tecnico No. 139–392, Revision A, dated February 14, 2017 (BT 139–392). If there is any wear of the liner, before further flight, replace the bearing with bearing P/N 3G6230V00655 and install special nut P/N 3G6230A06851. Replacing the bearing with bearing P/N 3G6230V00655 constitutes terminating action for the remaining actions of this AD for the bearing.

(ii) Inspect each bearing for movement. Refer to Figure 9 of BT 139–392. If the bearing moves freely out of its seat, before further flight, replace the rotating scissor attachment flange with flange P/N 3G6220A00633, replace the bearing with bearing P/N 3G6230V00655 and install special nut P/N 3G6230A06851. Replacing the bearing with bearing P/N 3G6230V00655 constitutes terminating action for the remaining actions of this AD for the bearing.

(iii) Inspect the M/R rotating scissors for play and wear of each bearing, paying particular attention to the bearing staking condition, by manually moving the lower half scissor along the axis of the spherical bearing. Refer to Figure 1 of BT 139–392. If there is any play or wear beyond allowable limits, before further flight, replace the bearing with bearing P/N 3G6230V00655 and install special nut P/N 3G6230A06851. Replacing the bearing with bearing P/N 3G6230V00655 constitutes terminating action for the remaining actions of this AD for the bearing.

(2) Within 100 hours TIS, replace and torque each lower half scissor nut with special nut P/N 3G6230A06851 to the M/R rotating scissor in accordance with the Compliance Instructions, Part II, steps 5.1 through 5.9 of BT 139–392, except you are not required to discard parts.

(3) As of the effective date of this AD, do not install any M/R rotating scissors with a bearing P/N 3G6230V00654 installed.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222–5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

(1) Leonardo Helicopters AW139 IETP Document Code AMP–39–C–62–31–00–00A–31AC–A, Rotating control installation—Fixed

swashplate and rotating scissors—Detailed inspection, Issue 29, dated July 31, 2017, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2017-0028-E, dated February 15, 2017. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-0982.

(i) Subject

Joint Aircraft Service Component (JASC)
Code: 6200, M/R System.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Leonardo Helicopters Alert Bollettino Tecnico No. 139-392, Revision A, dated February 14, 2017.

(ii) Reserved.

(3) For Leonardo Helicopters service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on November 7, 2017.

Scott A. Horn,

Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2017-24738 Filed 11-22-17; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1027; Product Identifier 2017-NM-092-AD; Amendment 39-19105; AD 2017-24-01]

RIN 2120-AA64

Airworthiness Directives; ATR—GIE Avions de Transport Régional Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain ATR—GIE Avions de Transport Régional Model ATR42-500 airplanes and Model ATR72-212A airplanes. This AD requires an inspection for routing attachments of electrical harness bundles and for wire damage, and corrective actions if necessary. This AD was prompted by reports of electrical harness bundle chafing with a window blinding panel in the fuselage due to missing routing attachments. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective December 11, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 11, 2017.

We must receive comments on this AD by January 8, 2018.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Fax:* 202-493-2251.

- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact ATR—GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email

continued.airworthiness@atr-aircraft.com. You may view this referenced service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1027.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1027; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2017-0118, dated July 7, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain ATR—GIE Avions de Transport Régional Model ATR42-500 airplanes and Model ATR72-212A airplanes. The MCAI states:

An event was reported of several spurious alarms on a recently delivered ATR 72 aeroplane. During troubleshooting, damage was evidenced on the electrical harness bundle (Route 1M) due to chafing with a window blinding panel located on the left hand of the fuselage, zone 231. A bracket, necessary to maintain the harness bundle close to the structure of the fuselage and avoid chafing, was missing.

Same bracket has also been found missing on the other side of the fuselage (symmetrical location, Right Hand side, zone 232, route 2M) with no damage on the harness bundle.

A quality investigation revealed another aeroplane on the production line, where same brackets were not installed.

This condition, if not detected and corrected, may lead to wire failure (cut or shorted) and, in case of several failures in