

Action code: IMMEDIATELY

Overspeed incident with disintegrated flywheel

SL2020-702/PRP
September 2020

Concerns

Owners and operators of
MAN Energy Solutions Four-Stroke
Diesel Engines
Type: L23/30 and L28/32 GenSet &
Propulsion

Dear Sir or Madam

A recent incident on a license build engine was reported to MAN ES where a governor was replaced by the vessel crew. Subsequently the replaced governor failed during engine start up and the engine went into uncontrolled overspeed. After a few seconds, the flywheel disintegrated, causing severe damage. The root cause analysis of the failing governor and the subsequent disintegration of the flywheel is still ongoing. Preliminary information indicates that the replaced governor was not installed as per the makers specifications, that the safety system that should prevent uncontrolled engine overspeed did not function properly and that the material used for the failing flywheel might not have been within our specifications.

Please be informed that such incidents pose a serious potential threat to property and persons and may potentially even result in bodily injuries and/or fatal casualties.

Attachments:

Template for Engine and Flywheel data

Descriptions:

- D10403-02-L2330AK
- D10403-02-L2832A
- D124A1-03-L2330AK
- D124A1-01-L2832A

Work cards:

- M5090105-12
- M6090105-03H
- M5090101-02
- M6090101-01H
- M182A2-01-L2330AK
- M182A2-01-L2832A



Overspeed protection, mechanical governor.

MAN ES request that installation and maintenance of the governor is done in accordance with Makers instruction. In case of doubt, do not hesitate to contact the respective engine builder, MAN ES and/or the Governor maker directly before working on the governor as a wrong installation might lead to an uncontrolled overspeed.

MAN ES warns that an uncontrolled engine overspeed can potentially result in damaged valve gear, piston, connecting rod or flywheel causing engine failure and may potentially even result in bodily injury and/or fatal casualties.

Engine overspeed tests must be done according to the classification society rules and the Instruction Manual to ensure that the safety system functions correctly, cf. also our Service Letter [SL2015-600](#) from April 2015.

When performing such mandatory overspeed test, please follow the instructions M5090105-12 (L23/30H), M6090105-03H (L28/32H), D10403-02-L2330AK, D10403-02-L2832A, D124A1-03-L2330AK, D124A1-01-L2832A.

Flywheel casted material quality.

We have received information that indicates further flywheels may not have been produced according to our specification. Currently the number of flywheels cannot with certainty be limited, hence your engine(s) might be affected and you are strongly encouraged to check the flywheel as a failure of a flywheel produced of material potentially outside our specification increases the severity of the potential consequences deriving from an engine overspeed incident.

An incident involving a disintegrated flywheel poses a serious potential threat to property and persons and may potentially even result in bodily injuries and/or fatal casualties.

For validation of flywheel quality, please contact the Engine Builder.

If you desire MAN ES recommendations for investigations of the flywheel of L23/30 and L28/32 engines, we kindly ask you to fill in the attached template and forward it to: engineering-support-holeby@man-es.com

In order to reduce the risk of serious incidents to personnel and/or property, we further highly recommend you to follow the below precautions until the flywheel quality on your engine has been validated:


1. Strictly adhere to the safety instructions of the Instruction Manual.
2. Ensure that operating personnel are not present in the hazardous area in way of the flywheel, unless it is absolutely unavoidable.
3. Do not start the engine in local, start the engine remotely.

We request you to forward this information to your technical operating personnel and/or your clients.

We kindly ask you to provide us with a short acknowledgement regarding the receipt of this warning letter.

Yours faithfully


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