

SERVICE BULLETIN

Subject: *Hayabusa-JK* Cargo Hook Keeper Lock

Compliance: Recommended

Applicability: See below

Part Number	Description
528-045-00	<i>Hayabusa-JK</i> 10K Cargo Hook
528-046-00	<i>Hayabusa-JK</i> 6K Cargo Hook

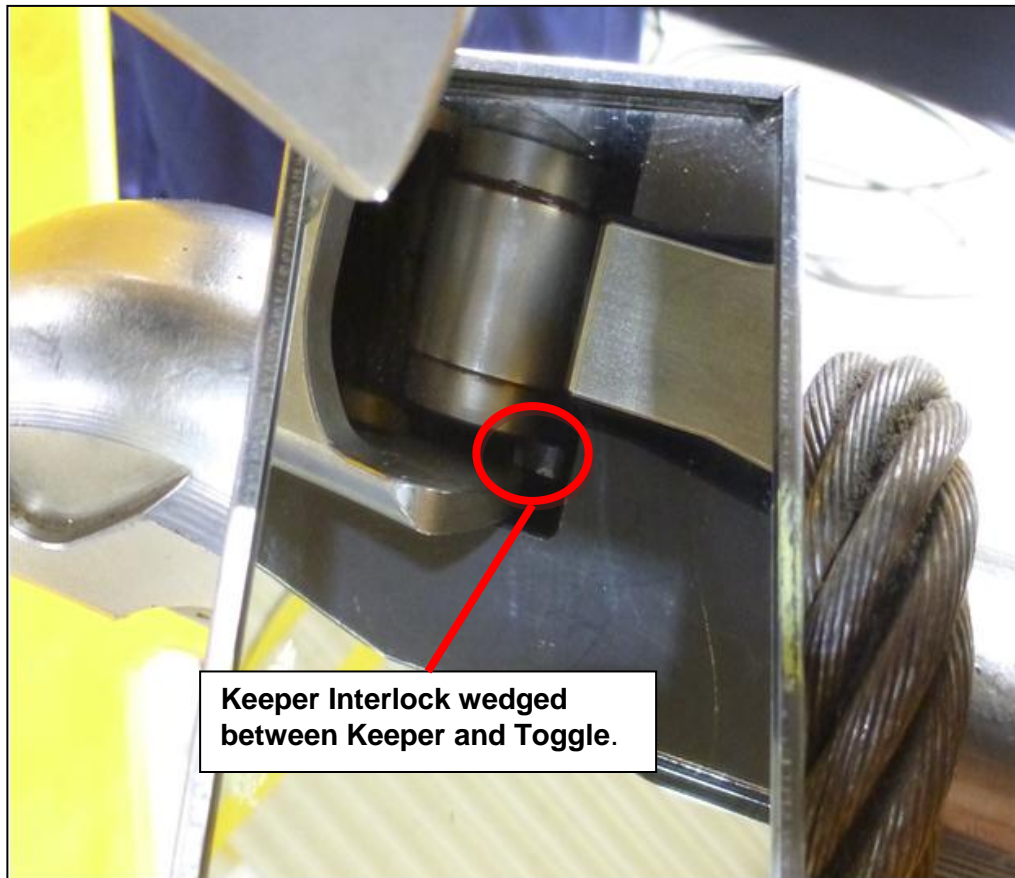
Ownership: Please review the list of applicable part numbers and determine if the equipment is still in your possession. If this equipment is no longer in your possession, please forward this notice to the current owner.

Description: There has been a report of a dropped load from *Hayabusa-JK* 10K Cargo Hook, part number 528-045-00. Investigation has concluded that the cause of the dropped load was an improperly loaded wire sling. The wire sling was supported against the keeper as shown in Figure 1, not actually resting on the load beam. During the lift, even though the keeper was partially open, the cargo hook reported a Keeper locked condition. The keeper lock indication resulted from deformation of the Keeper which allowed the Keeper Interlock to wedge into the space between the Toggle and Keeper. See Figure 2. When the Keeper Interlock is in this position, the Keeper is reported to be locked.

Figure 1 – Failure scenario: Improperly loaded wire sling.



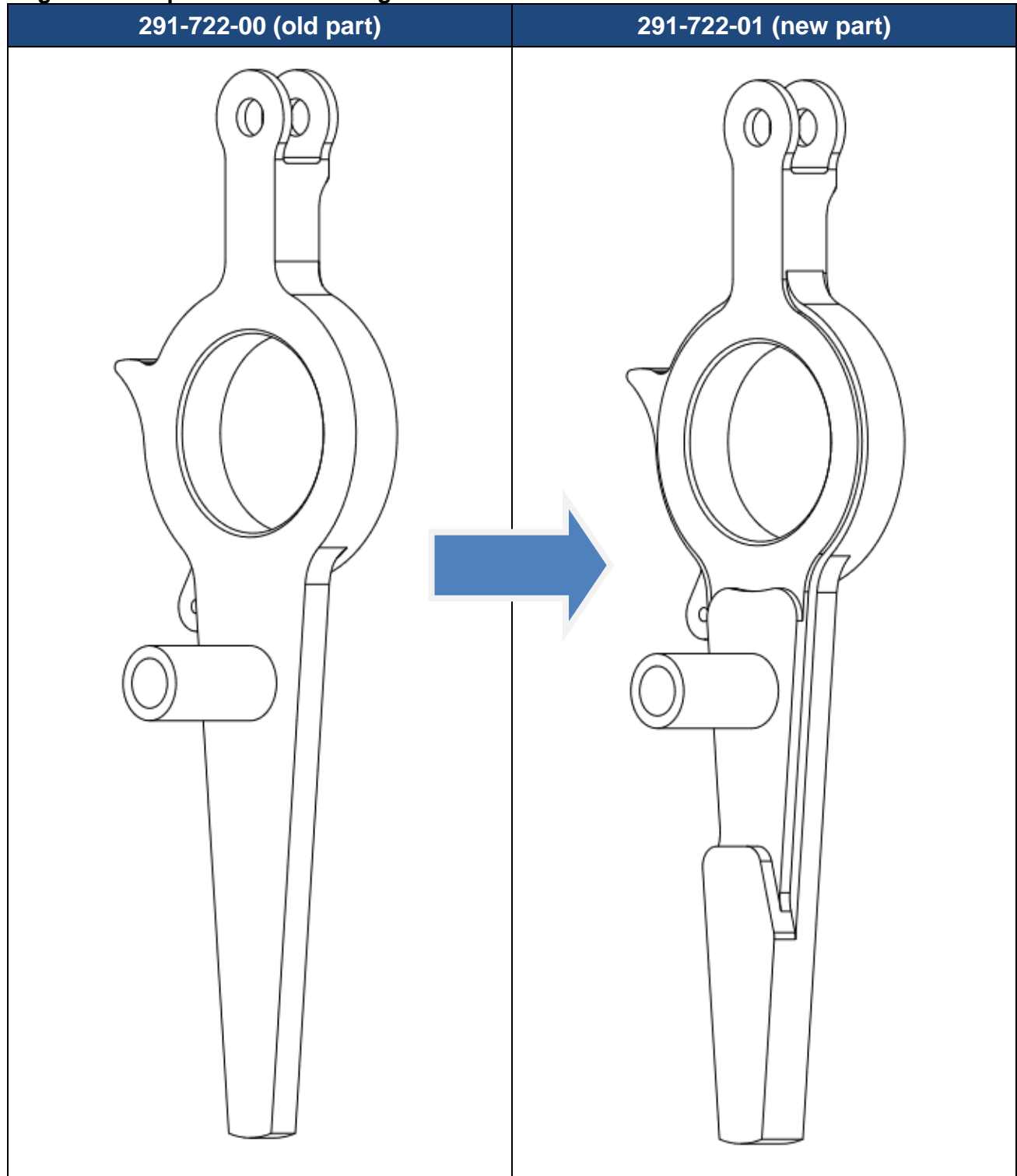
Figure 2 – Failure scenario: Keeper Interlock wedged between Toggle and Keeper.



Solution: In order for the Keeper to properly lock as load is applied, it must be in the closed position. The Keeper will not lock if it is not closed as load is applied. No design change can prevent a dropped load due to mis-loading of the cargo hook as shown in figure 1. Ground crew must ensure that the cargo hook is properly loaded.

A minor modification however can be made to the cargo hook to avoid erroneous reporting of the keeper locked signal, giving the pilot opportunity to take action and avoid a dropped load. To accomplish this, the Keeper Interlock has been redesigned, see Figure 3. A modification to the cargo hook sideplates is required to accommodate the redesigned Keeper Interlock (291-722-01). The change will prevent wedging of the Keeper Interlock between the Keeper and Toggle and false reporting of the Keeper locked switch.

Figure 3– Keeper Interlock redesign



Action: Equipment must be returned to Onboard Systems for compliance with this Service Bulletin. Field repair is not possible as CNC machining is required for sideplate modification. The following steps will be performed:

1. Disassemble the cargo hook. Remove and discard keeper interlock 291-722-00. Remove the screws which retain the connector mount block. Tie-wrap the connector block, supporting it away from toggle pivot hole. Stamp the cargo hook serial number on the manual sideplate and place remaining parts together into a bin. Modification will be made to the solenoid sideplate. No further sideplate disassembly is required prior to machining, including bushing removal.
2. Perform CNC machining modification of sideplate per revision 8 (or later) for 291-711-00, and revision 5 (or later) for 291-756-00. See figures 4 and 5. Deburr and wash sideplate.
3. Inspect sideplate modification per figures 4 and 5 (QA).
4. Treat bare aluminum with alodine (519-033-00). Rinse and dry thoroughly. Apply 1 thin coat of 2-part MIL-P-23377 type I primer (519-028-00) using a foam or acid brush.
5. Inspect application of protective finishes for complete coverage and workmanship (QA).
6. All cargo hook components are cleaned and degreased.
7. Carefully inspect toggle pivot bolt shank (511-043-00) for any raised dings or dents; inspect toggle pivot DU bearings (517-022-00) for scores or exposed copper > 50%. Replace toggle pivot bolt and DU bearings as needed.
8. Reassemble cargo hook per owner's manual 120-210-00 and internal planning documentation. Install new Keeper Interlock 291-722-01. Apply fresh grease and PTFE lubrication.
9. Mark the serial plate with "AMDT: A" using a decal, or alternatively metal stamp 'AMDT A' with 1/8" character steel stamps.
10. Perform ATP in accordance with 180-229-00 or 180-230-00, as applicable. Place copy of ATP with cargo hook.

Figure 4 – Sideplate Modification, P/N 291-711-00 (Hayabusa-JK 10K Cargo Hook)

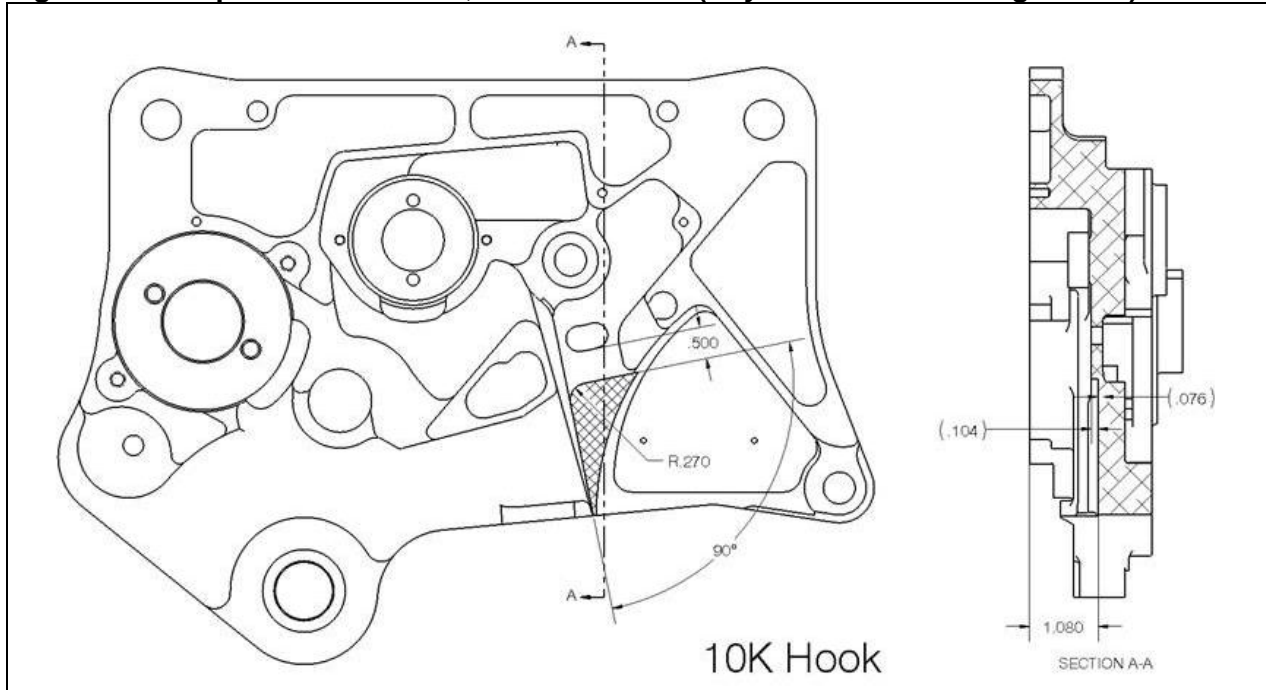
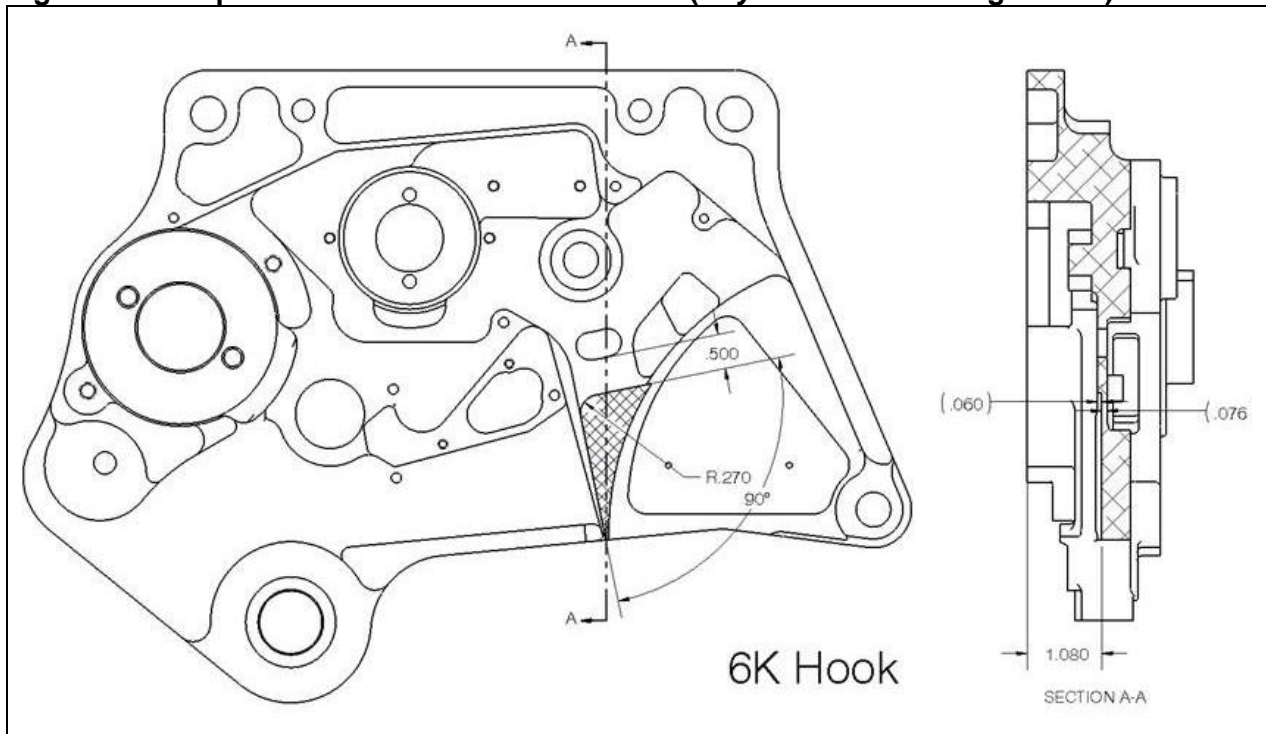
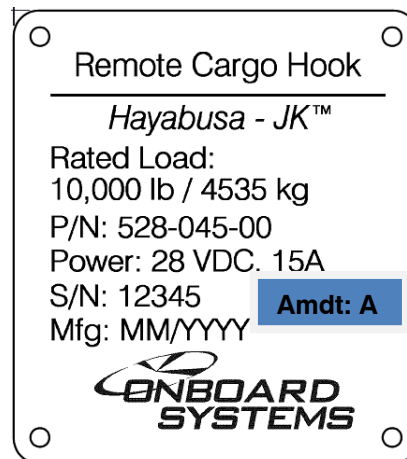


Figure 5 – Sideplate Modification P/N 291-756-00 (Hayabusa-JK 6K Cargo Hook)



Configuration Management: Compliance with this Service Bulletin will be denoted as Amendment A (AMDT: A). The part number and the serial number of the Cargo Hook do not change. See serial plate example below.

Figure 6 – Amendment marking of Serial Plate



Publications Affected: The Owner’s Manual has been updated to reference this Service Bulletin and provide additional instructions and warnings.

Document Number	Description
120-210-00	Owner’s Manual – Hayabusa- <i>JK</i> Cargo Hooks
180-229-00	ATP – Hayabusa- <i>JK</i> 10K Cargo Hook
180-230-00	ATP – Hayabusa- <i>JK</i> 6K Cargo Hook

The latest manual revisions are available through Onboard Systems’ web site at www.onboardsystems.com.

Point of Contact: For additional assistance, contact Brendan Fitzpatrick at Onboard Systems. Phone: 360-546-3072 or 1-800-275-0883. Email:

brendan@onboardsystems.com, Techhelp@OnboardSystems.com



Service Bulletin

Document: 159-038-00

Revision: 0 Date: 05/13/16

Revision	Date	Reason for Revision
0	05/13/16	Original Issue