



SERVICE INFORMATION LETTER

Equipment/Furnishings - Load Check Tool Usage

TO: HOLDERS OF SERVICE INFORMATION LETTER SIL-2014-01 REVISION 4, DATED MAR 05/21.

REVISION NO. 5, DATED APR 28/23

HIGHLIGHTS

Pages which have been revised are outlined below together with the highlights of the revision. Please destroy obsolete pages in your copy of this SIL and replace them with Revision No. 5 pages dated Apr 28/23.

PAGE NO.	DESCRIPTION OF CHANGE	EFFECTIVITY
All	Updated to Reflect New Revision Number and Date	All
1	Updated Paragraph 1 - Description	All
2	Updated Paragraph 3 - Discussion	All
2	Updated Paragraph 4 - Procurement Information	All
3	Updated Paragraph 5.A.(1) Note - Preparation	All
7, 8	Updated Paragraph 5.B - Operation	All
13	Updated Paragraph 5.C	All

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1. Description

This Service Information Letter (SIL) outlines the set-up and use of the FLCT (P/N 49900-890 Rev. L or later) for the periodic load check of hoists to meet the compliance portion of any standing service bulletins or CMM. This SIL does not include the load check testing requirements or procedures. Refer to applicable CMM or service bulletin. The tool and its components are shown in [Figure 1](#). Prior to use, verify the correct configuration of the FLCT tool by examination of the identification found on the body of the tool.

The Field Load Check Tool (FLCT) can be provided in two kit configurations. The original kit configuration P/N 49900-889-104, consists of the FLCT and adapter parts to be used with hoist systems utilizing the 44307-480 series of large hook dampers. A revised kit format P/N 49900-889-103, consisting of only the FLCT without the additional adapter parts, is introduced to be used with all other hoist systems. This kit is applicable to hoists as noted in the table below and does not contain the additional adapter parts that are not necessary in most hoist installations. Both kits are available for purchase for operators to use for recurring load checks.

Note that the FLCT can be used on all hoists without any adapter parts by removing the hook/bumper assembly or hook/damper assembly and installing the FLCT directly on the ball end of the cable.

HOIST	FLCT KIT	NOTES
44301-10-7	P/N 49900-889-104 (Contains adapter parts: 49900-891-101, 49900-891-3, 49900-891-4)	Hoist can be tested with or without the noted adapter parts. If adapter parts are not used, remove Shock Attenuator Assembly from Large Hook Damper and use FLCT on the ball end of the cable.
All other external hoists	P/N 49900-889-103, (alternate) P/N 49900-889-104	Remove the hook/bumper or hook/damper from the cable and use the FLCT directly on the ball end of the cable.

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2. Background

A Goodrich ASB and recent changes to CMMs have instituted periodic checks of the hoist overload clutch to verify the health of the clutch. These document changes allow use of the FLCT to meet the testing requirements, and this document is intended as the set-up and operating instructions for the tool.

3. Discussion

The FLCT consists of two main elements: the load check equipment, which includes a solid-state load cell inside the body of the tool (See [Figure 1](#)), and the hand-held digital display (See [Figure 3](#)) which displays the applied load. The FLCT is designed to be attached to the ball end of the hoist cable, which requires the hook be removed before it can be used. FLCT adapter parts included in FLCT Kit P/N 49900-889-104 (See [Figure 5](#)) allows testing of hoist assembly, 44301-10-7, without first having to remove the Shock Attenuator assembly from the cable. The instructions below will outline both testing methods. All of these procedures are demonstrated on the DVD included with both versions of the FLCT Kits. Use only FLCT 49900-890 Rev L or later. If a FLCT 49900-890 Rev K or earlier or a Field Load Check Tool Kit 49900-889-101 is found in service, do not use this earlier configuration because damage to the rescue hoist cable will occur. Return earlier configurations of the tool to Goodrich immediately and purchase a compliant FLCT Kit from the distributor provided in [Paragraph 4](#).

4. Procurement Information

Procurement of FLCT kits used for routine maintenance load checks or to comply with this SIL is done through Goodrich Corporation authorized parts distributor SATAIR (WWW.SATAIR.COM).

Cage Code: 0R3X9 Satair USA, Inc.
525 Westpark Drive STE 400
Peachtree City, GA 30269

Cage Code: R1120 Satair A/S
Amager Landevej 147A
Kastrup, Denmark 2770

Cage Code: QB267 Satair PTE LTD.
12 Seletar Aerospace Link
Singapore 797553

Calibrate FLCT units in accordance with GSE-2017-1.

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5. Procedures

A. Preparation

- (1) Prior to use of the FLCT, remove the tool from its storage box and inspect it for damage or contamination. Inspect the wire harness between the load cell and the meter for damage and make sure that the meter and load cell are being operated within their calibration time limits.

NOTE: If the FLCT and/or meter requires re-calibration, refer to GSE-2017-01 for instructions.

- (2) Do a visual inspection of the cable ball retainer and threaded shaft to make sure they are fully assembled to the load cell. Make sure the thin beads of torque seal are not broken, see [Figure 1](#). (Refer to GSE-2017-01).
- (3) Inspect the cable ball retainer for damage and contamination.
- (4) Inspect the hex nut on the threaded shaft and make sure that it operates smoothly on the shaft. If needed, apply a small amount of grease (MIL-PRF-23827 or equivalent) to the threads. Make sure that the circlip is secured in the groove of the threaded shaft. See [Figure 2](#).

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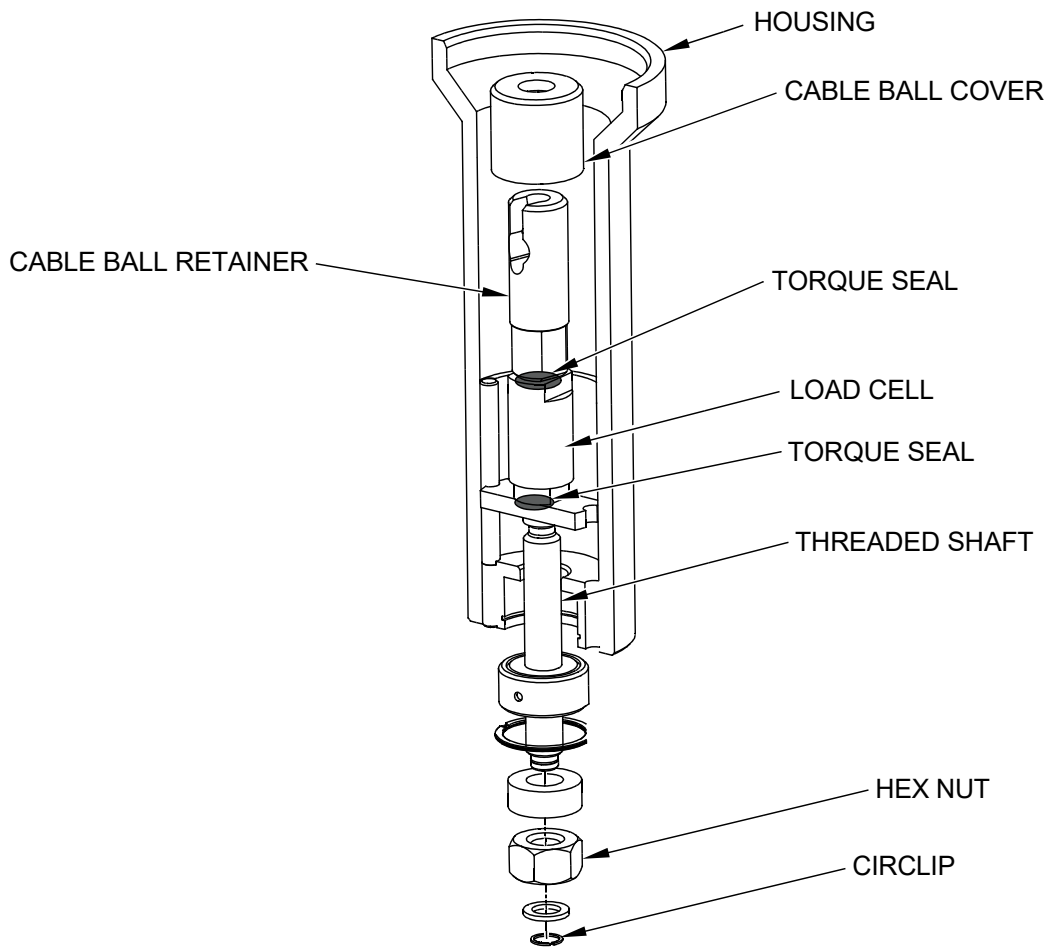
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Figure 1. Load Check Tool (49900-890) Rev L or Later

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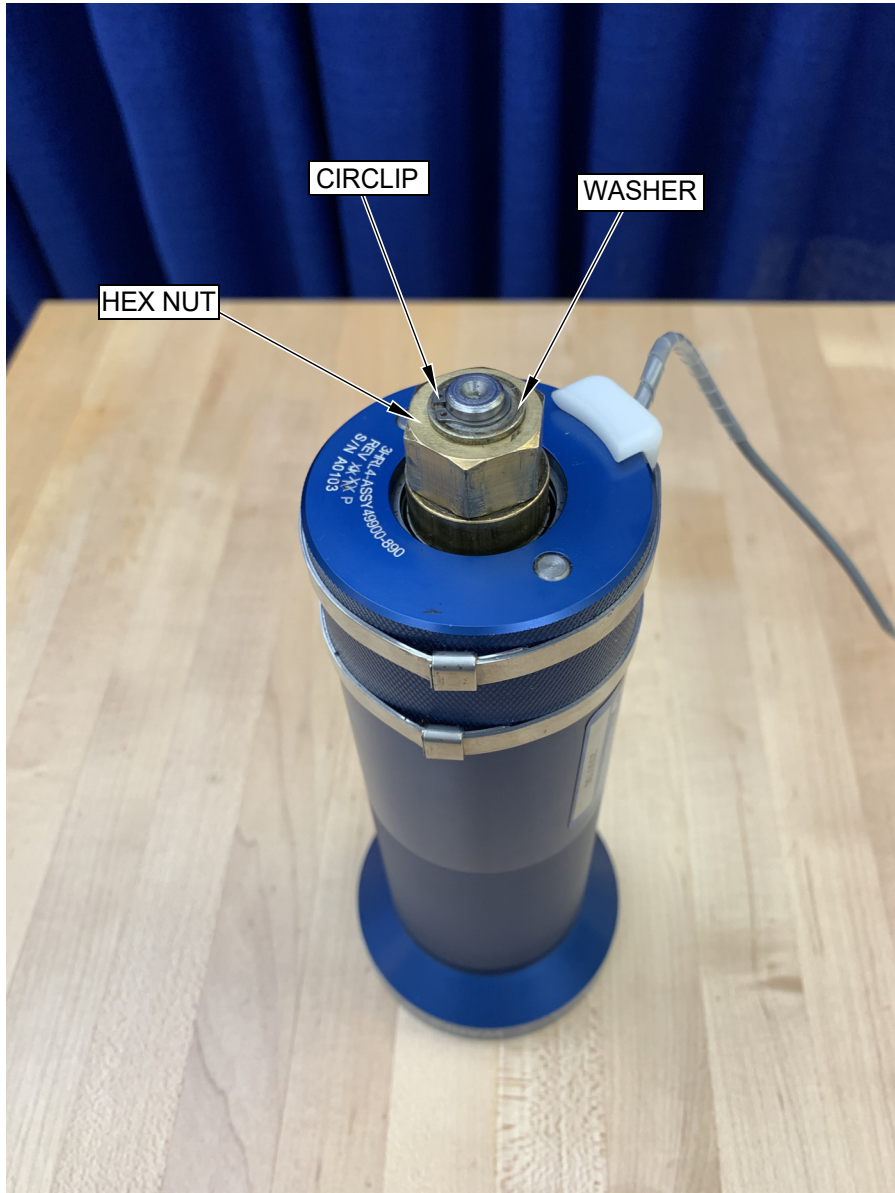


Figure 2. Circlip and Hex Nut Installation

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B. Operation

- (1) Installation directly onto cable (all hoists) using FLCT kit 49900-889-103 or 49000-889-104 without the adapter parts.
 - (a) Apply power to the hoist, deploy the boom (if applicable), and reel out as much cable as necessary to safely install the FLCT and conduct the load check. Remove the hook in accordance with the instructions found in the applicable CMM.
 - (b) Prior to installing the FLCT, plug the connector from the wire harness from the tool into the digital display (See [Figure 3](#)) and turn it on. Failure to complete this step may result in incorrect readings. Make sure that "TEDS" appears in the top left corner of the display. This verifies that the digital display has properly identified the load cell and is communicating with it properly. If "TEDS" is not displayed, consult the digital display user's manual to enable "TEDS" functionality.
 - (c) Make sure the digital load display units is set to pounds as indicated by the "lb" icon on the display. If not press the UNITS button repeatedly until the "lb" icon appears on the display. See [Figure 3](#).
 - (d) Place the cable ball cover onto the end of the hoist cable and place the ball end of the cable into the cable ball retainer of the FLCT. Lower the cable ball cover into place around the ball retainer locking the cable ball end into the cable ball retainer. See [Figure 4](#).
 - (e) Make sure the hex nut on the FLCT is backed-off completely and touching the washer. See [Figure 2](#).
 - (f) FLCT is ready to test. See applicable CMM or service bulletin for load check testing requirements.
- (2) Installation with FLCT Adapter parts (49900-891-101, 49900-891-3, 49900-891-4) on hoist 44301-10-7 only. Adapter parts are included in the FLCT Kit P/N 49900-889-104. See [Figure 5](#).

NOTE: The following procedures apply to hoist 44301-10-7 only.

- (a) Switch on the Hoist master switch WINCH/CBL CTR in the overhead panel, swing out the boom and reel out the cable approximately 3 feet (1 m).
- (b) Remove lock spring ([Figure 6](#), Item 40) from the shock attenuator assembly (35) used in Damper 44307-480.

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- (c) Unscrew and remove the shock attenuator assembly (35) from the damper housing (30) and set the damper housing aside.
- (d) Remove retaining ring (45) from the shock attenuator assembly and remove the bonding probe (50).
- (e) Extend the ball end of the cable through the shock attenuator body and note that the single piece ball retainer (55) may release from the shock attenuator and stay on the ball end of the cable.
- (f) Place the FLCT cable ball cover over the end of the hoist cable and place the ball end of the cable into the cable ball retainer of the FLCT. See [Figure 4](#). Lower the cable ball cover into place around the cable ball retainer locking in ball end of the cable into the cable ball retainer. (See [Figure 4](#)). Lower the body of the shock attenuator onto the FLCT. See [Figure 7](#).
- (g) Prior to installing the FLCT, plug the connector from the wire harness from the tool into the digital display (See [Figure 3](#)) and turn it on. Failure to complete this step may result in incorrect readings. Make sure that "TEDS" appears in the top left corner of the display. This verifies that the digital display has properly identified the load cell and is communicating with it properly. If "TEDS" is not displayed, consult the digital display user's manual to enable "TEDS" functionality.
- (h) Pass the digital display and wire harness through the center tube assembly (49900-891-101) and slide the center tube assembly up around the FLCT and hold the center tube assembly in place.
- (i) Place the lower cap (49900-891-3) (with the large opening) onto the FLCT and make sure that it is securely seated. Place the center tube assembly onto the lower cap and make sure that it is securely seated.

WARNING: PINCH HAZARDS EXIST AT ALL INTERFACES BETWEEN PARTS. KEEP HANDS CLEAR OF INTERFACES AT ALL TIMES.

- (j) Place the upper cap (49900-891-4) on top of the center tube assembly and make sure that it is securely seated. Make sure that the upper and lower caps are properly installed before proceeding. When fully installed, the FLCT, adapter parts, and attached cable with shock attenuator should look like [Figure 5](#).
- (k) FLCT is ready to test. See applicable CMM or service bulletin for load check testing requirements.

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Figure 3. Load Check Tool Digital Display (SSI)

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Figure 4. Cable Ball Cover Installation

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Figure 5. Center Tube Assembly (49900-891-101) with Lower Cap (49900-891-3) and Upper Cap (49900-891-4) (For hoist 44301-10-7)

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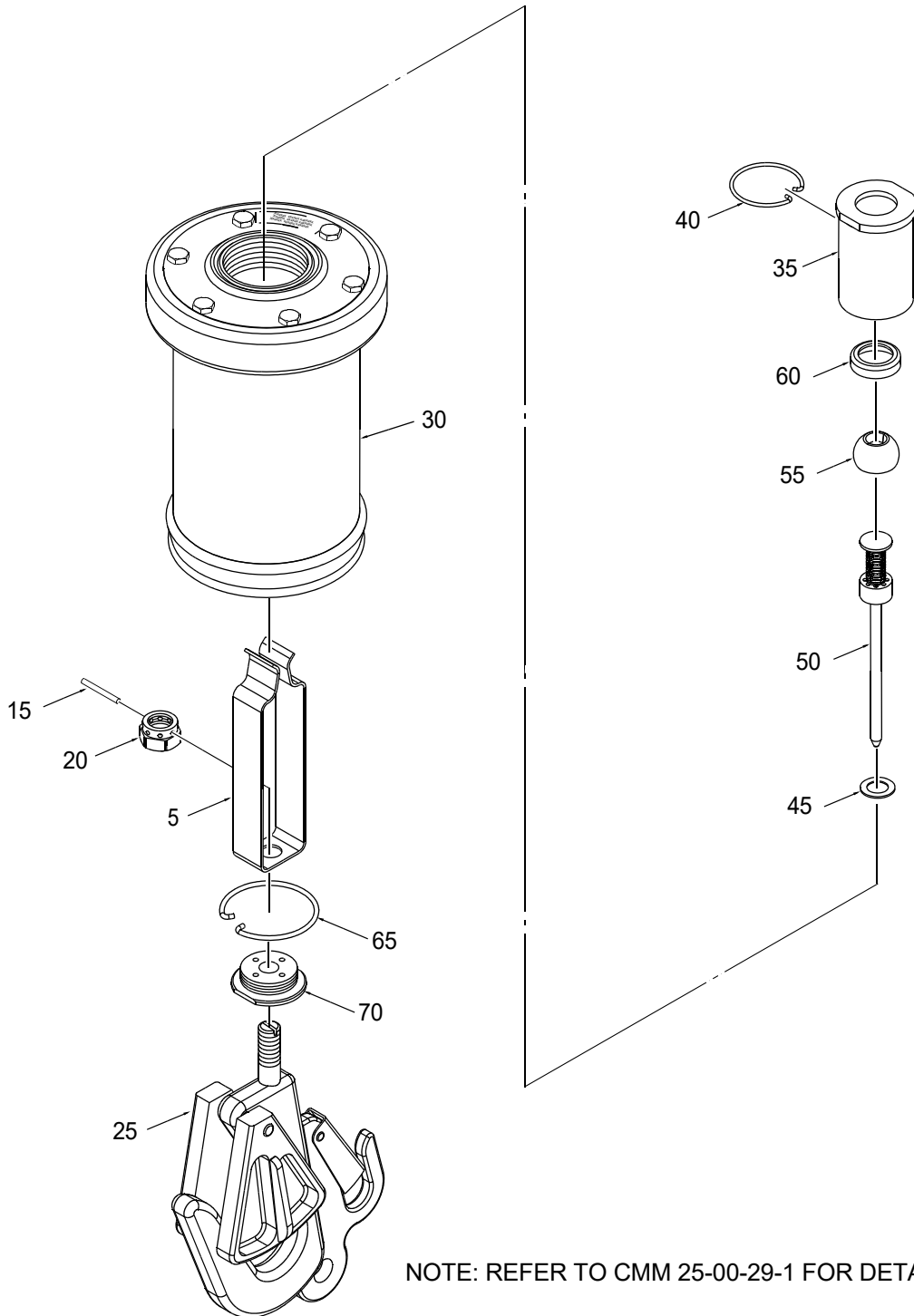
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NOTE: REFER TO CMM 25-00-29-1 FOR DETAILS.

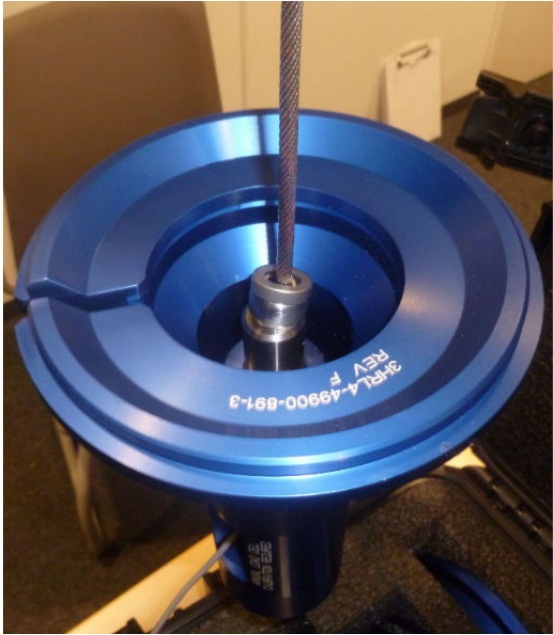
Figure 6. Hook Damper Assembly (44307-480 hook damper series for hoist 44301-10-7 shown)

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Figure 7. Shock Attenuator Installation (44307-480 hook damper series for hoist 44301-10-7 shown)

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C. Perform these steps following all load checks

- (1) Inspect the first 30 feet (10 meters) of the cable for damage and size in accordance with the Cable Inspection section of the CMM.

Carefully inspect the first 18 inch (45 cm) of cable after the load check has been completed to make sure that there are no broken wires or necked down sections of the cable within this region. If a load check results in a bend in the cable, refer to SIL-2012-02 (Cable Care and Conditioning) Section 8, to determine if the cable can be returned to service. The minimum allowable cable diameter is 0.185 inch (4.7 mm). Additionally, no broken wires or necked down sections are allowed in the cable. If conditions such as these are observed, replace the cable immediately and notify Goodrich by sending an email to GHW@collins.com for technical assistance.

- (2) Reel in the cable to home the hook. Testing is complete.

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