

F-15 CONSTANT SPEED DRIVE AND UPGRADE KIT

Authorized Distribution Partner

CSDs were designed in the 1970s and 1980s. F-15 variants use different versions of CSDs.

Collins (UTAS/Hamilton Sundstrand) continues to improve reliability of the CSD by applying current technology and offers upgrade kits to increase mean time between failure (MTBF).

AllClear is the worldwide stocking distributor for Collins' F-15 CSD and has significant inventory at the LRU and subcomponent levels. AllClear has also signed a manufacturing license agreement with Collins to be the exclusive source for the F-15 CSD unique and common parts and/or components for military applications including U.S. Government Foreign Military Sales (FMS) solicitations.



CONSTANT SPEED DRIVE (CSD)



CSD UPGRADE KIT



F-15 CSD UPGRADES

MMB-1477 APPLICATION: Collins issued Military Modification Bulletin (MMB-1477) for Modification of Constant Speed Drive (CSD), model 50IDG02A, part number 711595 series, used on F-15 aircraft. This modification is applicable to all CSDs with serial numbers prior to serial number 2948. Upgrade parts are contained in parts kit 174-71 and in (Idler) gear set parts kit 174-44. These kits should be implemented in first overhaul cycle as a whole kit. If all part numbers are not replaced during this installation, there is a risk to the integrity of the upgrade.

REASON FOR MMB BULLETIN: This MMB incorporates improvements using commercial technology consisting of TiN coated wobblers, improved slippers, crowned pistons, and an extended service filter in the CSD. These improvements are standard CSD design and will improve the MTBF for this CSD assembly. In addition, a new pressure

fill adaptor assembly is incorporated to prevent the unit from being overfilled with oil. If not already done, a more robust idler shaft assembly is incorporated.

REFERENCE: This MMB affects Collins engineering changes 50077E, 08B208, and 09E101; CSD Overhaul Instructions (OHi), Technical Order (T.O.) 9H6-3-36-3; CSD illustrated parts breakdown T.O. 9H6-3-36-4; Collins engineering drawings 711596, 712087, 712088, 739546, 739547, and 744382; Collins parts kits 174-44 and 174-71.

IDENTIFICATION: After completion of the MMB-1477 mark the symbol MMB1477 on the modification plate 656762 by using the metal stamp method.

MMB-1513 APPLICATION: This bulletin is applicable to Collins CSD, model 75IDG10, part number 739827 series, all serial numbers, used on F-15E aircraft.

REASON FOR MMB-1513 BULLETIN: This MMB incorporates improvements using commercial technology consisting of TiN coated wobblers, new cylinder block assy, improved slippers, and crowned pistons. These improvements are standard CSD design and will improve the MTBF for this assembly. In addition, process improvements have been incorporated in a new splined input shaft to help improve the life of the carbon seal. This MMB modifies sub components in center housing assembly, differential assembly, left/right hand pump and motor assembly. These parts are contained in parts kit 174-98.

REFERENCE: This MMB effects Collins CSD Overhaul Instructions (OHi) T.O. 9H6-5-14-3; Illustrated Parts Breakdown (IPB) T.O. 9H6-5-14-4; Collins engineering changes EC15B037 and EC17B843; Collins 75IDG10 parts kit 174-98. These kits should be implemented in first overhaul cycle as a whole kit. If all part numbers are not replaced during this installation there is a risk to the integrity of the upgrade.

IDENTIFICATION: After completion of the MMB-1513 mark the symbol MMB1513 on the modification plate 656762 by using the metal stamp method.

MMB-1538 APPLICATION: This modification is applicable to Collins CSD, part number 739827 series, model 75IDG10, used on F-15E aircraft which contain the (shimmed) control piston and pushrod assembly part number 733753.

REASON FOR MMB-1538 BULLETIN: To incorporate a wavy washer loaded control piston in place of the existing shimmed control piston. This will reduce the chance of improper shimming. This MMB modifies subcomponents in center housing assembly, right hand pump and motor assembly, control piston and pushrod assembly. The required parts are contained in control piston kit 174-120.

REFERENCE: This MMB effects Collins CSD Overhaul Instructions (OHi) T.O. 9H6-5-14-3, Illustrated Parts Breakdown (IPB) T.O. 9H6-5-14-4, Standard Practices Manual (SPM) T.O. 9H6-1-113, Collins engineering change (EC) 56506E, and Collins Control piston kit 174-120. These kits should be implemented in first overhaul cycle as a whole kit. If all part numbers are not replaced during this installation there is a risk to the integrity of the upgrade.

IDENTIFICATION: Incorporation of this bulletin advances the part number of the right hand pump and motor assembly from 742730 to 742730A. Mark the symbol MMB1538 on the modification plate.

APPLICABLE PLATFORM	PRODUCT	MODEL	MMB	KIT PN	APPLICATION PN	APPLICATION MSN	T.O.	PURPOSE OF KIT
F-15	CSD	50IDG02A	1477	174-71, 174-44	711595 (B,G,H,J,L,M)	1650-01-096-4603, 1650-00-132-2785, 1650-01-268-1673, 1650-01-438-0943	T.O. 9H6-3-36-3	INCORPORATE IMPROVEMENTS USING COMMERCIAL TECHNOLOGY CONSISTING OF TIN COATED WOBBLERS, IMPROVED SLIPPERS, CROWNED PISTONS AND AN EXTENDED SERVICE FILTER IN CSD.
F-15E	CSD	75IDG10	1513	174-98	739827 (A,B)	1650-01-240-0068, 1650-01-313-4227	T.O. 9H6-5-14-4	INCORPORATE IMPROVEMENTS USING COMMERCIAL TECHNOLOGY CONSISTING OF TIN COATED WOBBLERS, NEW CYLINDER BLOCK ASSY, IMPROVED SLIPPERS AND CROWNED PISTONS.
F-15E	CSD	75IDG10	1538	174-120	739827 (A,B)	1650-01-240-0068, 1650-01-313-4227	T.O. 9H6-5-14-3	INCORPORATE A WAVY WASHER LOADED CONTROL PISTON IN PLACE OF THE EXISTING SHIMMED CONTROL PISTON. THIS WILL REDUCE THE CHANCE OF IMPROPER SHIMMING.

QUALITY & COMPLIANCE

AllClear Aerospace & Defense is committed to quality, continuous improvement, and full regulatory compliance at every level of the organization through AS9120 and ISO 9100:2008 certifications, implementing lean processes, continuous quality improvement training initiatives, and a customer service focused business model. Our in-house legal and compliance teams maintain robust processes and procedures to comply with all federal, state, and local regulations including ITAR, EAR, and the FCPA.