

T.O. 1T-34A-20

**PRODUCT IMPROVEMENT
DIGEST**

USAF SERIES

T-34A

AIRCRAFT

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

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USAF

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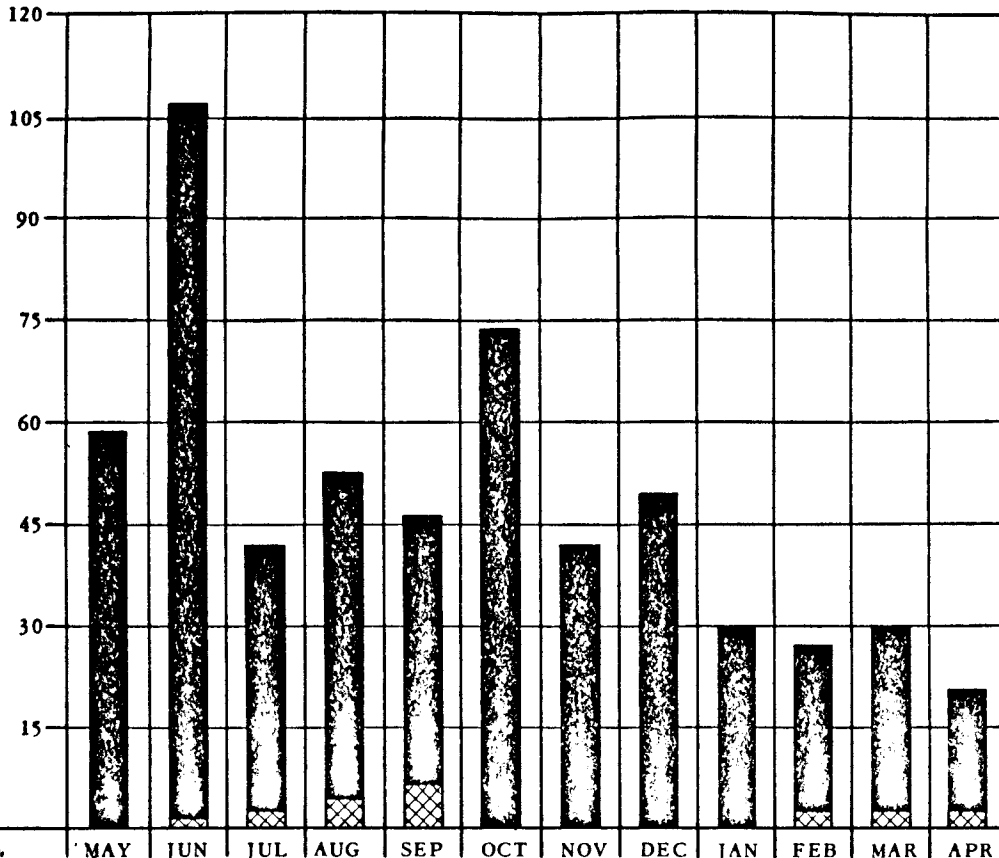
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INTRODUCTION

1. The Product Improvement Digest is published in accordance with Chapter 7 of AMCM 66-2 (proposed) and AMC Teletype MCMSI-2-27-E, dated 4 March 1958.
2. The purpose of this technical order is to:
 - a. Provide Air Force activities with a digest of the deficiencies and problem areas being experienced on T-34 aircraft and directly related equipment.
 - b. Provide available information on a continuing basis as to the corrective action being taken or contemplated on existing problems.
 - c. Keep using commands informed of inherent deficiencies in Air Force equipment.
 - d. Portray, chronologically, failure-to-fix actions on individual problems.
 - e. Provide a source from which interested Air Force agencies can build an historical reference file of equipment deficiencies.
3. The source data for this Product Improvement Digest are the materiel deficiency reporting system - Unsatisfactory Reports.
4. This digest contains charts on Unsatisfactory Reports received each month against the T-34 aircraft. These charts reflect the number of Unsatisfactory Reports applicable to each of the aircraft systems as described in Specification MIL-H-00596B (USAF) and T.O. 00-20A-1, Section 5. Following these charts are narrative statements concerning problem areas being encountered on the T-34 aircraft. The problem areas are reflected by system as outlined by the above Military Specification and technical order.
5. The Product Manager's assessment of facts is the deciding factor on whether a deficiency constitutes an Air Materiel Command or using activity problem worthy of inclusion in the Product Improvement Digest; however, the following general criteria are used as a guide.
 - a. Reported deficiencies that are recognized as affecting a number of the same aircraft type/model but for which corrective action has not been released.
 - b. Deficiencies which have not been reported in volume but are suspected to exist on most aircraft of the same type/model.
 - c. Reported deficiencies which indicate a problem due to field activity departure from published maintenance procedures.

SECTION I
UNSATISFACTORY REPORTS
CHART

UNSATISFACTORY REPORTS



PERIOD (MONTHS, YRS, QTRS, ETC)	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	TOTAL
	1957						1958						
TOTAL	59	107	42	52	46	74	42	49	30	27	30	20	578
AIRFRAME	3	9	4	3	2	10	7	2	1	3	4	2	50
LANDING GEAR	11	16	4	10	5	12	1	8	6	5	5		83
HYDRAULIC													
UTILITY	1				1			7					9
POWER PLANT	8	28	15	12	14	23	16	14	6	8	7	10	161
FUEL	3	2	6	5	6	6	2		5	1		2	38
OIL	1	1											2
IGNITION	10	13	5	2	3		5	11	2	4			55
EXHAUST		1							1				2
PROPELLER	7	15	3	12	5	14	5	4	7	2	10	4	88
COOLING													
ELECTRICAL	12	17	3	8	9	8	5	2	2			2	68
INSTRUMENTS	3	4	2		1	1	1	1		1	1		15
RADIO & RADAR		1								3	3		7
ARMAMENT													
PHOTOGRAPHIC													

SECTION II
LANDING GEAR SYSTEM

T-34 AIRCRAFT

NOSE LANDING GEAR ROD END BEARING

1. **SUBJECT:** Nose Landing Gear Retract Rod End Bearing Installation
2. **DATE DEFICIENCY WAS REVEALED:** 17 May 1957
3. **PROJECT RESPONSIBILITY:** SAAMA-MTA
4. **PROBLEM:** The fore and aft retract rod end bearings are failing. When the rod end fails (pulls apart), the nose gear swings free and positive down locking cannot be accomplished, resulting in collapse of the gear on landing.

COMBAT CAPABILITY - Not applicable.

5. **FACTUAL DATA:** T.O. 1T-34A-531 was released to modify the retract rod linkage which was to correct the difficulty. However, this modification did not prove to be of much value, as rod end bearing failures are still occurring. A higher strength rod end bearing, along with elongated plunger-shear pin rod assembly, was installed on the last 70 production aircraft. Five failures of these rod end bearings have also been reported. This problem was referred to the contractor for engineering re-evaluation. The contractor submitted an ECP outlining modification of the nose gear retracting mechanism. ECP was approved and the contract authorizing accomplishment of a prototype installation was distributed on 30 December 1957. FTAF was requested to furnish one T-34A aircraft to the contractor for the prototype installation. T-34A aircraft Serial No. 53-4168A arrived at the contractors facility approximately 13 January 1958 for prototyping. The prototype installation has been completed and inspected. The intent and operation of the modification appeared satisfactory. The contractor has submitted formal ECP-T34A-85 for evaluation and approval. Item not converted by HIAD.

X 6. **STATUS OF CORRECTIVE ACTION:** Recommend using organizations continue strict compliance with T.O. 1T-34A-6, including a dye-check of the rod ends at each periodic inspection, in addition to a thorough inspection for correct linkage adjustment and proper lubrication. Removal of the nose wheel doors, as directed by Hq FTAF, may reduce operating loads normally imposed on the retract linkage, as well as reducing required maintenance on the doors, bushing, linkage, etc.

ECP-T34A-85 is being processed for approval and retrofit of in-service aircraft with Shaffer Roller Bearing rod ends.

	1957							1958				
	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
UR's	1	3	2	2	0	2	0	1	1	1	0	0
FR's	0	0	0	0	0	0	0	0	0	0	0	0