

27 NOV 1990

05312.32/1206.58

QUALITY ASSURANCE PROVISIONS

Subj: Shaft Quill; P/N: (78286) 64357-07030-101; NSN: 1RM 1615-01-135-1504
PROCUREMENT OF

Attach: (1) First Article Test/Inspection, ASO-4200/86
(2) PCO Mandatory Inspection Requirements
(3) Certification Data Reports, Form DD 1423

1. Quality Assurance Provisions (Engineering Evaluation)

a. First Article Testing (FAT) is required and is forwarded as attachment (1).

b. PCO Mandatory Inspection is required and is forwarded as attachment (2). PCO Mandatory Inspection shall be accomplished at the source under the surveillance and final approval of the cognizant DCMC (QAR).

c. Certification Data Reports, Form DD 1423 are required and forwarded as Attachment (3).

2. Quality Assurance Provisions/Contract Requirements

A. In addition to the data on the SCPR, the following shall be included as part of the contract requirements.

(1) Overall Quality Assurance Requirements shall comply with MIL-I-45208A. In addition, the following paragraphs of MIL-Q-9858A shall apply: 3.1, 3.2, 3.3, 3.4, 3.5, 5.1, 5.2 6.1 and 6.2. The contractor shall submit through the CAO all major non-conforming material actions to the PCO for processing to NAVAVNDEPOT NAS, Pensacola and NAVAIR AIR 5142 and 5162 for disposition. Minor non-conforming material action shall be vested in the CAO for disposition. MRB action on critical characteristics cited on the PCO Mandatory Inspection Requirements shall be forwarded to the CAO for final disposition. Any non-conformance that effects a critical characteristic cited on the PCO Inspection Requirements will be defined as a Type I non-conformance. Any Type I non-conformance shall either be submitted as a request for waiver to the Contracting Officer or scrapped by the contractor.

(2) The contractor shall verify and document to the CAO that throughout the entire performance of the contract, all vendors performing the critical manufacturing processes cited in (PCO) Attach (2) are Sikorsky approved sources.

Subject: QUALITY ASSURANCE PROVISIONS (CONTINUED)

(3) The contractor shall identify on their process/operation sheets all manufacturing sources performing processes/operations outside of their facilities.

(4) The contractor shall provide the following documentation to the cognizant NAVAVNDEPOT referenced on Attachment (1) at time of First Article Test and the DCAS at time of PCO Mandatory Inspection.

- (a) Processs/operation sheets for P/N: 64357-07030-101 and all components referenced therein. After the successful completion of First Article Testing, these sheets shall not be revised or altered without prior approval from the cognizant NAVAVNDEPOT and NAVAIR engineering. These sheets shall include all vendors performing manufacturing operations and critical processes.
- (b) Completed inspection method documents for P/N: 64357-07030-101 and all components referenced therein.
- (c) Process certification and sources utilized.
- (d) Material requirements and certification.

(1) The contractor shall be required to procure the following item from the sources listed below:

- (a) Forging - P/N: 64357-07030-001 purchased from Consolidated Industries, Cheshire, CT (06563).

(5) Identification marking shall be in accordance with MIL-STD-130, latest issuance method and location shown on drawing and shall consist of items, a, b, c, and g under paragraph 5.3.3. Serialization shall be in accordance with MIL-STD-130. In addition, the inspection method sheets which list the characteristics of each item produced under the contract shall have serial number traceability back to the raw material, casting, forged billet.

(6) Contractors exceptions to any of the above stated quality assurance provisions must be submitted to the CAO for processing to the PCO for consideration.

FIRST ARTICLE INSPECTION REQUIREMENTS
ASO-4200/86

1. ORIGINATOR'S NAME & SYMBOL	2. REQN. NO
3. NSN/ACN	4. MANUFACTURER'S CODE
5. PART NO./IDENTIFICATION	

1RM 1615-01-135-1504

78286

64357-07030-101

6. FIRST ARTICLE INSPECTION/TEST CRITERIA:

- A. WORKMANSHIP
- B. DIMENSIONAL CHECK SPECIAL
(Specify below)
- C. REQUIREMENTS OF
MIL SPEC
PARAGRAPHS

- D. FORM, FIT
- E. FUNCTION
- F. INSPECT ARTICLES FOR COMPLIANCE WITH DRAWINGS AND SPECIFICATION REQUIREMENTS
- G. SEE REMARKS FOR ADDITIONAL INFO.

7. SAMPLES TO BE SUBMITTED FOR TESTING:

- A. QUANTITY (Specify) TWO (2)
- B. SAMPLE IS TO BE UNPAINTED. CORROSIVE AREAS ARE TO BE COATED WITH A LIGHT PRESERVATIVE.

8. TESTING FACILITY:

- A. CONTRACTOR'S FACILITIES OR COMMERCIAL FACILITIES SELECTED BY CONTRACTOR.
- B. NEAREST GOVT DESIGNATED FACILITY LISTED BELOW: (Name(s) & Complete mailing address(es))
NADEP
NAS, Pensacola, FL 32508
Code 55645
- C. OTHER (Specify)

9. MARKINGS OF TEST SAMPLE(S) SHIPPING CONTAINER:

- A. FOR FIRST ARTICLE TESTING. NOT RFI MATERIAL. DO NOT TAKE UP IN STOCK. CONTRACT NUMBER .
- B. OTHER (Specify)

10. SHIPMENT AND DISTRIBUTION OF SAMPLES:

- A. SAMPLE(S) MAY BE CONSIDERED AS PRODUCTION ITEMS UNDER THE CONTRACT PROVIDED THE SAMPLE(S) CAN BE REFURBISHED TO READY FOR ISSUE (RFI) CONDITION AND PROVIDED THE SAMPLE(S) HAVE INSPECTION APPROVAL OF THE COGNIZANT DCASR. SAMPLE(S) MAY BE SHIPPED AS PRODUCTION ITEMS ONLY AFTER ALL OTHER UNITS REQUIRED UNDER THE CONTRACT HAVE BEEN PRODUCED AND ARE READY FOR THE SHIPMENT.
- B. SAMPLE(S) SHALL NOT BE CONSIDERED AS PRODUCTION ITEMS DUE.
- C. SAMPLE(S) WILL BE RETURNED TO THE CONTRACTOR.
- D. SAMPLE(S) WILL NOT BE RETURNED TO THE CONTRACTOR
- E. SAMPLES WILL BE DESTROYED AFTER TEST TO INSURE THAT THEY WILL NOT BE FURNISHED AS APPROVED PRODUCTION ITEMS.
- F. OTHER (Specify)

11. ESTIMATED PRODUCTION LEAD TIME SCHEDULE

ACTION	ACTION ACTIVITY	*CALENDAR DAYS	ACCUMULATED CALENDAR DAYS	ACTION	ACTION ACTIVITY	*CALENDAR DAYS	ACCUMULATED CALENDAR DAYS
<input type="checkbox"/> A.	DEVELOP AND SUBMIT TEST PROCEDURES TO (Specify)			<input checked="" type="checkbox"/> F.	COMPLETE TESTING/EVALUATION AND SUBMIT TWO COPIES OF TEST REPORT WITH CONCLUSIONS & RECOMMENDATIONS TO THE PROCURING AGENCY (CONTRACTING OFFICER) AND/OR (Specify) <u>NAVAIR</u> <u>AIR-536</u>		
<input type="checkbox"/> B.	ANALYSIS OF TEST PROCEDURES AND NOTIFICATION TO CONTRACTOR (Specify)			<input checked="" type="checkbox"/> G.	ANALYSIS OF REPORTS AND NOTIFICATION TO CONTRACTOR	ASO/	45 340
<input type="checkbox"/> C.	PARTIAL INSPECTION/TESTING & PREPARATION OF TEST REPORT IN ACCORDANCE WITH MIL-STD-631 PRIOR TO FORWARDING SAMPLE(S) WITH REPORT TO GOVT. DESIGNATED TEST FACILITY.			<input checked="" type="checkbox"/> H.	PRODUCTION DELIVERY AFTER FIRST ARTICLE ACCEPTANCE	CONTRACTOR	160 505
<input checked="" type="checkbox"/> D.	SUBMISSION OF FIRST ARTICLE SAMPLE(S)-	CONTRACTOR	200 200				
<input checked="" type="checkbox"/> E.	COMPLETE TESTING PREPARE TEST REPORT IN ACCORDANCE WITH MIL-STD-831 AND SUBMIT REPORT TO THE PROCURING AGENCY (CONTRACTING OFFICER) AND/OR (Specify)	CONTRACTOR/DCASR	5 205				

*CALENDAR DAYS ARE SUBSEQUENT TO DATE OF CONTRACT.

12 SPECIAL INSTRUCTIONS TO THE CONTRACTING OFFICER:

A. THIS PROCUREMENT SHALL SPECIFY THAT THE FOLLOWING SPECIAL EQUIPMENT WILL BE FURNISHED BY THE GOVERNMENT FOR THE PURPOSES INDICATED AND IS TO BE RETURNED TO THE GOVERNMENT AFTER USE AS INTENDED AND NOT LATER THAN THE DELIVERY DATE OF THE LAST PRODUCTION ITEM UNDER CONTRACT: (Specify)

EQUIPMENT IDENTITY

PURPOSE

COGNIZANT ACTIVITY

B. THIS PROCUREMENT SHALL SPECIFY THAT SPECIAL EQUIPMENT SUCH AS: FIXTURES, JIGS, DIES, SPECIAL TOOLING, TEST EQUIPMENT, ETC. REQUIRED FOR THE MANUFACTURE AND/OR TESTING OF THE SUBJECT ITEM WILL NOT BE PROVIDED BY THE GOVERNMENT AND IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING NECESSARY PARTS AND REPAIR OF THE FIRST ARTICLE DURING TESTING.

D. THE SUCCESSFUL BIDDER WILL BE FURNISHED A SAMPLE TO SERVE AS AN AID IN MANUFACTURING. THE CONTRACTING OFFICER SHOULD CONTACT SC DIVISION FOR ASSISTANCE IN COORDINATING DELIVERY OF THE SAMPLE. ANY ALLEGED CONFLICT BETWEEN THE SAMPLE AND THE APPLICABLE DRAWINGS/SPECIFICATIONS SHALL BE PROMPTLY REPORTED IN WRITING TO THE CONTRACTING OFFICER.

E. FOLLOWING PRODUCTION OF ALL ITEMS UNDER THE QUANTITY REQUIREMENTS OF THE CONTRACT, THE CONTRACTOR WILL BE RESPONSIBLE TO RETURN THE GOVERNMENT FURNISHED SAMPLE IN READY FOR ISSUE (RFI) CONDITION TO THE GOVERNMENT. THE CONTRACTING OFFICER SHOULD CONTACT ASO SC DIVISION FOR ASSISTANCE IN COORDINATING RETURN SHIPMENT OF THE SAMPLE.

F. TWO COPIES OF THE CONTRACT AND RELATED SPECS/DRAWINGS SHALL BE FORWARDED BY REFERRAL TO **ex052** FOR PREPARATION OF A PROJECT ORDER TO THE GOVERNMENT DESIGNATED TEST FACILITY AND ALLOCATION OF REQUIRED FUNDS.

G. REQUISITION IS OTHER THAN NAVY (USAF, FOREIGN GOVT., ETC.) THE CONTRACTING OFFICER SHALL OBTAIN APPROPRIATE FUNDS FOR ALLOCATION TO THE NAVY TEST FACILITY SPECIFIED THEREIN. THE CONTRACTING OFFICER SHOULD CONTACT THE ORIGINATOR FOR ASSISTANCE AS REQUIRED.

H. UPON NOTIFICATION FROM THE CONTRACTOR, THE CONTRACTING OFFICER SHALL NOTIFY (Specify)
NADEP Pensacola Code 313

AS TO THE TIME AND LOCATION (Specify) **45** days PRIOR TO COMMENCING TESTS SO THAT ARRANGEMENTS MAY BE MADE TO HAVE (Specify on line below)

NADEP Pensacola Personnel
REPRESENTATIVE WITNESS/SUPERVISE THE TESTING

I. THE ORIGINATOR'S SYMBOL (BLOCK I) SHALL BE SHOWN ON THE CONTRACT UNDER THE WORDS "FOR DOD ADMINISTRATIVE USE ONLY", IN CLOSE PROXIMITY TO THE COGNIZANT IMS CODE.

J. THE GOVERNMENT DESIGNATED TEST FACILITY AND THE PROCURING AGENCY (CONTRACTING OFFICER) SHALL BE NOTIFIED AS TO ALL SHIPPING DATA APPLICABLE TO THE FIRST ARTICLE SAMPLE, SUCH AS BILL OF LADING NUMBER, METHOD OF SHIPMENT, ETC.

7 days prior to shipment

13. SPECIAL INSTRUCTIONS TO SC

A. SC SHALL RESERVE ONE ITEM TO BE UTILIZED AS A SAMPLE. MANUFACTURING AID AFTER AWARD OF CONTRACT. SAMPLE SHALL BE FURNISHED FROM PRIOR CONTRACT NO. _____

B. SC SHALL INITIATE AND COORDINATE INSTRUCTIONS FOR SHIPMENT OF THE SAMPLE.

C. THE SAMPLE SHALL BE INSPECTED BY (Cog. Test Facility) _____

TO ASSURE COMPLIANCE WITH THE REQUIREMENTS OF APPLICABLE DRAWINGS/SPECS PRIOR TO SHIPMENT TO THE CONTRACTOR.

14. FIRST ARTICLE TEST/INSPECTION COST ESTIMATES FOR GOVERNMENT DESIGNATED TEST FACILITIES:

A. ESTIMATED TESTING/INSPECTION COST IS: \$ _____

15. WAIVER OF FIRST ARTICLE TESTING REQUIREMENTS

A. WAIVER MAY BE GRANTED FOR

FSCM
78286

PART NUMBER
64357-07030-101

B. WAIVER WILL NOT BE GRANTED FOR ANY SUPPLIER

C. WAIVER OF TESTING REQUIREMENTS SHOULD REDUCE THE ESTIMATED PRODUCTION LEADTIME TOTAL TO **200** DAYS

16. REMARKS

See Attached

16g. Remarks

A. The Supplier Shall Provide At The Time of F.A.T.

1. First Article Test shall be accomplished in a two (2) phase process. Phase one (1) shall consist of 100% dimensional inspection certification by the NAVAVNDEPOT at the contractor's facility. Phase two (2) shall consist of form, fit and material analysis at the NAVAVNDEPOT.

2. Material Certification: Documentation certifying that forging P/N: 64357-07030-001 was obtained from:

Consolidated Industries, Chesthire Ct. (96563)

(a) Test data required from Forger I/A/W AMS 6260 for P/N: 64357-07030-001

- (1) Melt source and size of forging stock
- (2) Chemical composition (each heat)
- (3) Hardenability (each heat)
- (4) Grain size (each heat)
- (5) Macrostructure (each heat)
- (6) AMS 2301 Frequency - severity rating (each heat)

(b) Contractor's Test Responsibilities

- (1) Hardness - 100%
- (2) Non Destructive Testing 100% of finished part

NOTE: It is the contractor's responsibility to confirm that all applicable Tests required in AMS 6260 and drawing #64357-07030 are performed and to assure that all reported values are within specified limits.

3. Dimensional Certification

4. Ensure compliance with drawing #64357-07030 Rev. "C" and all provisions referenced therein.

5. Completed Method Inspection Sheets for P/N: 64357-07030-101 and all components referenced therein.

6. Process/Operation Sheets for P/N: 64357-07030-101 and all components referenced therein.

16g. Remarks

A. The Supplier Shall Provide At The Time of F.A.T. (continued)

7. Documentation certifying that the following critical manufacturing processes were performed by Sikorsky approved sources:

- a. Magnetic Particle Inspection I/A/W MIL-STD-1949
- b. Phosphate Coating I/A/W SS8416
- c. Carburize I/A/W SS8015

8. Identification marking shall be in accordance with MIL-STD-130, latest issuance method and location shown on drawing and shall consist of items, a, b, c, and g under paragraph 5.3.3. Serialization shall be in accordance with MIL-STD-130. In addition, the inspection method sheets which list the characteristics of each item produced under the contract shall have serial number traceability back to the raw material, casting, forged billet.

PROCUREMENT CONTRACTING OFFICER (PCO)
MANDATORY INSPECTION REQUIREMENTS

NSN: 1RM 1615-01-135-1504
P/N: (78286) 64357-07030-101

1. PCO Mandatory Inspection is required I/A/W MIL-STD-105 latest issuance:

a. Level of Inspection (LOI)

- (1) Critical Requirements - 100% inspection shall apply
- (2) Major and Minor - shall be based on MIL-STD-105D

b. Acceptance Quality Levels (AQL)

- (1) Critical - 100% inspection and conformance shall apply
- (2) Major - 1.00
- (3) Minor - 4.00

2. The following shall be verified by DCMC:

a. Quality of Workmanship

b. Material Verification:

- (1) Test data required from forger I/A/W AMS 6260 for
P/N: 64357-07030-001

- (a) Melt source and size of forging stock
- (b) Chemical composition - (each heat)
- (c) Hardenability (each heat)
- (d) Grain size (each heat)
- (e) Macrostructure (each heat)
- (f) AMS 2301 frequency - severity rating (each heat)

(2) Contractor's Test Responsibility

- (a) Hardness - 100%
- (b) Non Destructive Testing 100% of finished part

Note: It is the contractor's responsibility to confirm that all applicable tests required in AMS 6260 and drawing 64357-07030 are performed and to assure that all reported values are within specified limits.

- (3) DCMC shall verify that forging P/N: 64357-07030-001 was obtained from:

Consolidated Industries, Cheshire, CT (96563)

3. Finish

PROCUREMENT CONTRACTING OFFICER (PCO)
MANDATORY INSPECTION REQUIREMENTS

NSN: IRM 1615-01-135-1504
P/N: (78286) 64357-07030-101

4. Ensure compliance with drawing 64357-07030-101 Rev. "C" and all provisions referenced therein.
5. Complete Inspection Method Sheets for P/N: 64357-07030-101 and all components referenced therein.
6. Process/Operation Sheets for P/N: 64357-07030-101 and all components referenced therein. DCMC shall verify that these are the same as approved at the time of First Article Test.
7. DCMC shall verify that the following critical manufacturing processes were performed by Sikorsky Aircraft approve sources:
 - a. Magnetic Particle Inspection I/A/W MIL-STD-1949
 - b. Phosphate Coating I/A/W SS8416
 - c. Carburize I/A/W SS8015
8. Characteristics shall be 100% verified by DCMC:
 - a. Critical Characteristics:
 - (1) Part Number 64357-07030-101 Sheet #1
 - (a) Magnetic Particle Inspection I/A/W MIL-STD-1949
 - (b) Phosphate Treat I/A/W SS8416
 - (c) Carburize I/A/W SS8015
 - (d) Zone 3D, See Internal Spline Data
 - (e) Zone 5D, See External Spline Data
 - (f) See Note #2
 - (g) See Note #4
 - b. Major Characteristics:
 - (1) Part Number 64357-07030-101
 - (a) Zone 6C, 45°
 - c. Minor Characteristics:
 - (1) Part Number 64357-07030-101
 - (a) None

CONTRACT DATA REQUIREMENTS LIST
(2 Data Items)

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY: TDP _____ TM _____ OTHER _____
---------------------------	------------	------------------------------------------------

D. SYSTEM/ITEM <i>1615-01-135-1504</i>	E. CONTRACT/PR NO.	F. CONTRACTOR
-------------------------------------------	--------------------	---------------

1. DATA ITEM NO. 0001	2. TITLE OF DATA ITEM CERTIFICATION DATA REPORT	3. SUBTITLE COMPLETE PROCESS OPERATIONS SHEETS
--------------------------	----------------------------------------------------	---------------------------------------------------

4. AUTHORITY (Data Acquisition Document No.) DI-MISC-80678	5. CONTRACT REFERENCE	6. REQUIRING OFFICE NADEP
---------------------------------------------------------------	-----------------------	------------------------------

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQ	12. DATE OF FIRST SUB. SEE BLOCK 16*	14. DISTRIBUTION
8. APP CODE A		11. AS OF DATE	13. DATE OF SUBS. SUB. SEE BLOCK 16*	a. ADDRESSEE

16. REMARKS PARAGRAPHS 10.1, 10.2, 10.2.1, 10.2.2, 10.2.4, 10.5 SHALL APPLY. * UPON SUBMISSION OF FIRST ARTICLE TESTING SAMPLE ** IF PROCESS OPERATION SHEETS CHANGE AFTER SUCCESSFUL COMPLETION OF FIRST ARTICLE TEST	b. COPIES	
	Draft	Final
	Reg	Repro
	NADEP	/
	DSCR-JAPB**	/
	ACC	/
	15. TOTAL ----->	3

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

1. DATA ITEM NO. 0002	2. TITLE OF DATA ITEM CERTIFICATION DATA REPORT	3. SUBTITLE COMPLETE INSPECTION METHOD SHEETS
--------------------------	----------------------------------------------------	--------------------------------------------------

4. AUTHORITY (Data Acquisition Document No.) DI-MISC-80678	5. CONTRACT REFERENCE	6. REQUIRING OFFICE NADEP
---------------------------------------------------------------	-----------------------	------------------------------

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED	10. FREQUENCY AS REQ	12. DATE OF FIRST SUB. SEE BLOCK 16*	14. DISTRIBUTION
8. APP CODE A		11. AS OF DATE	13. DATE OF SUBS. SUB. SEE BLOCK 16*	a. ADDRESSEE

16. REMARKS PARAGRAPHS 10.1, 10.2, 10.2.1, 10.2.2, 10.2.4, 10.5 SHALL APPLY. * UPON SUBMISSION OF FIRST ARTICLE TESTING SAMPLE	b. COPIES	
	Draft	Final
	Reg	Repro
	NADEP	/
	DSCR-JAPB	/
	ACC	/
	15. TOTAL ----->	3

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

G. PREPARED BY MICHAEL L. WRIGHT <i>Michael L Wright</i>	H. DATE 8-3-98	I. APPROVED BY <i>Michael L Wright</i>	J. DATE 8-3-98
----------------------------------------------------------------	-------------------	-------------------------------------------	-------------------

