- (A) GENERAL:
- (A.1) PRATT & WHITNEY (P&W) IS THE END USER.
- (A.2) DURING PERFORMANCE OF THIS ORDER, YOUR QUALITY CONTROL SYSTEMS
  AND MANUFACTURING PROCESS ARE SUBJECT TO REVIEW, VERIFICATION,
  ANALYSIS, AND APPROVAL BY TCT, AND AUTHORIZED VOLVO AND FAA
  REPRESENTATIVES.
- (A.3) TCT, VOLVO, AND THE FAA SHALL BE AFFORDED THE RIGHT TO

  VERIFY AT THE SUPPLIER'S PREMISES ANY INFORMATION RELATING TO THE

  MANUFACTURE, PROCUREMENT, TESTING, AND/OR INSPECTION OF PRODUCT

  REQUIRED FOR THE PERFORMANCE OF THIS ORDER.
- (A.4) SUPPLIER IS RESPONSIBLE FOR COMPLYING WITH ALL OF THE REQUIREMENTS OF THIS PURCHASE ORDER INCLUDING PROVIDING COMPLETE AND PROPER DOCUMENTATION WITH EACH SHIPMENT OF PRODUCT. IF THE REQUIRED DOCUMENTATION IS INCOMPLETE OR INCORRECT, THE SUPPLIER'S ACCOUNT MAY BE DEBITED \$200.00 PER OCCURRENCE.
- (A.5) SUPPLIER IS SUBJECT TO ALL TERMS AND CONDITIONS SPECIFIED ON THE REVERSE SIDE OF THIS PURCHASE ORDER.
- (A.6) THE INFORMATION DISCLOSED HEREIN IS PROPRIETARY WITH

TURBOCOMBUSTOR TECHNOLOGY, INC (TCT), VOLVO, AND/OR P&W, AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED TO REPRODUCE ARTICLES OR SUBJECT MATTER COVERED THEREIN WITHOUT WRITTEN PERMISSION OF TCT. BY ACCEPTANCE OF THIS P.O., THE SUPPLIER AGREES TO AFFIX THIS STATEMENT TO ANY DUPLICATION THEREOF IN WHOLE OR IN PART.

(A.7) UNLESS OTHERWISE STATED, ALL QUANTITIES STATED HEREIN ARE
ESTIMATED QUANTITIES ONLY. TCT'S ACTUAL REQUIREMENTS MAY IN FACT BE
LESS THAN THE AMOUNTS LISTED AS "MAXIMUM" OR "TOTAL". THE FACT THAT

NO RELEASES ARE MADE, OR THAT THE RELEASES MADE ARE LESS THAN THE

ESTIMATED QUANTITIES, WILL NOT SERVE AS A BASIS FOR AN EQUITABLE

ADJUSTMENT UNDER THE "CHANGE" CLAUSE OR ANY TERMINATION CLAUSE. TCT

MAKES NO GUARANTEE, WARRANTY, OR ANY OTHER REPRESENTATION THAT ANY OF

THE QUANTITIES STATED IN THIS AGREEMENT WILL IN FACT BE REQUIRED. ANY

COST SELLER INCURS OUTSIDE THE AGREED UPON LEAD TIME IN ANTICIPATION

OF RELEASED REQUIREMENTS WILL BE SOLELY AT THE SELLER'S OWN RISK AND

TCT ASSUMES NO LIABILITY THEREFOR.

(A.8) ANY EXPEDITED DELIVERY COSTS (E.G. AIR FREIGHT) CAUSED BY

NON-ADHERENCE TO THE PURCHASE ORDER SCHEDULE SHALL BE THE

RESPONSIBILITY OF THE SUPPLIER.

(A.9) N/A.

- (B) QUALITY SYSTEMS:
- (B.1) SUPPLIER MUST BE CERTIFIED TO ISO9001.
- (B.2) SUPPLIER'S QUALITY SYSTEM MUST CONFORM TO SQAR 210.
- (B.3) ALL MATERIALS AND PROCESSES SHALL BE CONTROLLED IN ACCORDANCE WITH THE APPLICABLE P&W MCL-LCS REQUIREMENTS. APPROVED MCL-LCS

SUPPLIERS ARE IDENTIFIED IN P&W MCL APPENDIX 36. WHEN USED, APPROVED NDT SOURCES MUST BE LISTED IN MCL APPENDIX A, APPROVED COMMERCIAL LABS

MUST BE LISTED IN APPENDIX 56, AND APPROVED SPECIAL PROCESS SUPPLIERS

MUST BE MCL APPROVED AND LISTED IN TH P&W MCL SQL.

(B-4) SUPPLIER IS RESPONSIBLE FOR FLOWING DOWN AND FOR ENSURING

ADHERENCE TO THE REQUIREMENTS OF THIS PURCHASE ORDER BY ALL SUB-TIERS.

- (B.5) NADCAP APPROVAL IS REQUIRED FOR THE PERFORMANCE OF ALL SPECIAL PROCESSES AS IDENTIFIED IN SOAR 210.
- (B.6) SUPPLIER WILL RETAIN ALL RECORDS IN ACCORDANCE WITH SQAR 210 (UP

TO 40 YEARS, DEPENDING ON THE RECORD TYPE), AND WILL MAKE THESE

RECORDS AVAILABLE TO TCT AND/OR VOLVO UPON REQUEST WITHIN 24 HOURS.

(B.7) AS REQUIRED TO VERIFY PRODUCTS AND PROCESSES, SUPPLIER SHALL USE

AND MAINTAIN CALIBRATED INSPECTION AND TEST EQUIPMENT IN ACCORDANCE

WITH ANSI/NCSL Z540.1, ISO 10012, AND ISO/IEC 17025, AS APPLICABLE.

- (C) SOURCE SUBSTANTIATION AND FIRST ARTICLE REQUIREMENTS:
- (C.1) SPECIAL PROCESSES SHALL NOT BE PERFORMED WITHOUT WRITTEN

AUTHORIZATION (VIA BLUEPRINT, P.O., OR SIMILAR). SOURCE SUBSTANTIATION

/ APPROVAL IS REQUIRED FOR ALL SPECIAL PROCESSES IN ACCORDANCE WITH SQAR 310 AND PWA 300. NO CHANGES MAY BE MADE TO APPROVED SOURCES OR PROCESSES WITHOUT TCT AND/OR VOLVO APPROVAL, AS APPLICABLE.

(C.2) N/A

(C.3) UNLESS OTHERWISE SPECIFIED ON THE PURCHASE ORDER, A FIRST

ARTICLE SHALL BE MANUFACTURED, AND INSPECTION RESULTS SHALL BE

DOCUMENTED IN ACCORDANCE WITH SQAR 300 (OR SQAR 302, IF P&W IS THE DESIGN AUTHORITY) AND AS9102. BOTH THE PRODUCT AND INSPECTION RESULTS SHALL BE SUBMITTED TO AND APPROVED BY TCT ENGINEERING (AND/OR VOLVO IF APPLICABLE) PRIOR TO CONTINUING PRODUCTION.

## (D) PRODUCT REQUIREMENTS:

- (D.1) UNLESS OTHERWISE APPROVED IN WRITING BY TCT OR VOLVO, 100% INSPECTION TO THE BLUEPRINT (B/P) AND/OR P.O. REQUIREMENTS SHALL BE PERFORMED ON ALL PRODUCT PRIOR TO SHIPMENT. ALL SAMPLING PLANS SUBMITTED FOR APPROVAL SHALL BE STATISTICALLY VALIDATED USING A SAMPLE SIZE OF AT LEAST 25. ONCE APPROVED, SPC METHODS SHALL CONTINUE TO BE USED TO ENSURE THE PROCESS CAPABILITY (CPK) IS MAINTAINED AT OR ABOVE A 1.3.
- (D.2) TRACEABILITY TO THE TCT-ASSIGNED LOT NUMBER (OR SERIAL NUMBER IF

APPLICABLE) SHALL BE MAINTAINED FOR ALL TCT-SUPPLIED MATERIALS /

PRODUCT DURING ALL STAGES OF PROCESSING THROUGH SHIPMENT TO TCT.

SIMILARLY, HEAT NUMBER OR LOT TRACEABILITY SHALL BE MAINTAINED

RELATIVE TO THE TCT-ASSIGNED LOT/SERIAL NUMBER FOR ALL OTHER MATERIALS

INCORPORATED INTO THE PRODUCT.

(D.3) UNLESS PARTS ARE ALREADY UNIQUELY IDENTIFIED UPON RECEIPT (AND THAT MARKING IS NOT OBLITERATED DURING PROCESSING), PRODUCT SHALL BE TAGGED OR INK MARKED (USING TEMPORARY INK IN AN AREA NOT DETRIMENTAL TO THE PRODUCT) WITH THE TCT-ASSIGNED LOT NUMBER (HAVING THE FORM OF POXXXXXX). WHERE LARGE QUANTITIES OF PARTS HAVE BEEN ASSIGNED THE SAME LOT NUMBER, MARKING OF INDIVIDUAL PARTS IS NOT REQUIRED PROVIDED THE PARTS ARE SEGREGATED IN SEPARATE CONTAINERS (BAGS, BOXES, ETC. AS APPROPRIATE) AND EACH INDIVIDUAL CONTAINER IS CLEARLY IDENTIFIED WITH THE TCT-ASSIGNED LOT NUMBER.

(D.4) N/A

- (D.5) ANY SPECIALTY METALS INCORPORATED IN ARTICLES DELIVERED UNDER THIS PO SHALL BE MELTED IN THE UNITED STATES OR OTHER QUALIFYING COUNTRY IN ACCORDANCE WITH DFARS CLAUSE 252.225-7014, "PREFERENCE FOR DOMESTIC SPECIALTY METALS", AND DFARS CLAUSE 225.872-1, "CONTRACTING WITH QUALIFYING COUNTRY SOURCES GENERAL".
- (E) SHIPPING REQUIREMENTS:
- (E.1) PACKAGING SHALL BE ADEQUATE TO PREVENT DAMAGE AS WELL AS EXCESSIVE SHIFTING DURING TRANSIT.
- (E.2) ALL CONTAINERS OVER 50 LB GROSS WEIGHT SHALL BE PLACED ON A PALLET TO ENABLE MECHANICAL HANDLING.
- (E.3) PAPER, CARDBOARD, OR OTHER SUITABLE MEANS SHALL BE USED TO

  PREVENT METAL-TO-METAL CONTACT BETWEEN ALL MACHINED/FINISHED SURFACES

  OF PRODUCT.
- (E.4) PACKAGING SHALL BE CLEARLY IDENTIFIED WITH THE FOLLOWING INFORMATION: SUPPLIER NAME, P.O. NUMBER, PART NUMBER OR PRODUCT DESCRIPTION, AND TCT-ASSIGNED LOT NUMBER (OR SERIAL NUMBER).

- (F) DOCUMENTATION REQUIREMENTS:
- (F.1) PACKING SLIP, WHICH INCLUDES SUPPLIER'S INFORMATION, THE PART

  NUMBER AND QUANTITY BEING SHIPPED, THE PACKING SLIP NUMBER, AND THE

  P.O. NUMBER (INCLUDING LINE AND RELEASE NUMBERS).
- (F.2) CERTIFICATE OF CONFORMANCE, WHICH INCLUDES SUPPLIER'S
  INFORMATION, THE PART NUMBER AND QUANTITY BEING SHIPPED, TCT-ASSIGNED
  LOT NUMBER(S), THE PACKING SLIP NUMBER, REFERENCE TO DOCUMENTATION
  AUTHORIZING SHIPMENT OF NONCONFORMING PRODUCT (IF APPLICABLE), AND THE
  P.O. NUMBER.
- (F.3) N/A
- (F.4) N/A
- (F.5) DOCUMENTATION FROM TCT AUTHORIZING SHIPMENT OF NONCONFORMING
  PRODUCT (IF APPLICABLE), WHICH REFERENCES THE P.O. NUMBER, PART
  NUMBER, TCT-ASSIGNED LOT NUMBER(S), AND QUANTITY AUTHORIZED FOR
  SHIPMENT.
- (F.6) PRATT & WHITNEY-SPECIFIC REQUIREMENT: CERTIFY TO MCL MANUAL SECTION F-17. IN ADDITION, TEST AND CERTIFY TO THE FOLLOWING SPECIFICATIONS AS APPLICABLE FOR NON-ROTOR APPLICATIONS:

  -BAR, ROD, TUBE, PLATE, SHEET, STRIP, WIRE: F-14, E-25 AND TO THE FOLLOWING MATERIAL SPECIFIC REQUIREMENTS (THIS LIST IS FOR REFERENCE, AND DOES NOT WAIVE ANY ADDITIONAL REQUIREMENTS CONTAINED WITHIN F-14):
- -INCO 718 SHEET/STRIP: TEST AND CERTIFY TO E-44.
- -WASPALOY: TEST AND CERTIFY TO E-39.
- -BRAZE/WELD WIRE: TEST AND CERTIFY TO F-53.

-FORGINGS: F-4, F-65

-CASTINGS: F-11

(F.7) N/A.

## (G) NONCONFORMING PRODUCT:

- (G.1) IF TCT ENGINEERING HAS AGREED IN WRITING (PRIOR TO SHIPMENT) TO ACCEPT NONCONFORMING PRODUCT IN ITS CURRENT CONDITION, THE SUPPLIER SHALL SUPPLY A SEPARATE CERTIFICATE OF CONFORMANCE FOR THE NONCONFORMING PRODUCT, REFERENCING THE P.O. NUMBER, PART NUMBER, TCT-ASSIGNED LOT NUMBER OR SERIAL NUMBER, QUANTITY, ETC. THE DOCUMENT SHALL ALSO STATE THAT THE PRODUCT DOES NOT FULLY CONFORM TO THE PURCHASE ORDER REQUIREMENTS AND SHALL IDENTIFY AND TAKE EXCEPTION TO THE SPECIFIC NONCONFORMANCES IDENTIFIED. SUPPLIER SHALL ALSO INCLUDE DOCUMENTATION FROM TCT AUTHORIZING ITS SHIPMENT.
- (G.2) IF PRODUCT IS FOUND TO BE NONCONFORMING UPON RECEIPT BY TCT (AND WITHOUT PRIOR NOTIFICATION OF THE NONCONFORMANCE BY THE SUPPLIER AND SHIPMENT AUTHORIZATION BY TCT), AND IS DEEMED BY TCT ENGINEERING TO BE REWORKABLE TO A USABLE CONDITION, SUPPLIER MAY BE HELD RESPONSIBLE FOR ALL COSTS INCURRED BY TCT ASSOCIATED WITH REWORKING THE PRODUCT, UP TO ITS ORIGINAL PURCHASE PRICE.
- (G.3) WHEN SHIPPING TO TCT, NONCONFORMING PRODUCT SHALL BE PHYSICALLY IDENTIFIED USING A TEMPORARY METHOD OF IDENTIFICATION (PREFERABLY A RED TAG). NONCONFORMING PRODUCT, WHEN SHIPPED WITH CONFORMING PRODUCT, SHALL BE SEGREGATED IN SEPARATE BAGS, BOXES, OR OTHER APPROPRIATE PACKAGING. THE PACKING SLIP SHALL IDENTIFY THE NONCONFORMING PRODUCT (QUANTITY AND IDENTIFICATION/TRACEABILITY) SEPARATELY FROM THE CONFORMING PRODUCT.

## OUTSIDE SERVICES - VOLVO AERO CORP.(VOLVO) - P&W END USE

[NEW 06/21/10]

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