

	SECTION 18: PART TUNING / QUALITY IMPROVEMENT	Ref: TM-QA-DO-06-329-18-E
		Revision Level: 1
		Date: 05/20/03
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PURPOSE: To define TMI's requirement and guidelines for part tuning

SCOPE: May apply to any supplier's part as determined by TMI plant QC

EXPLANATION: Part tuning is described as the procedure used to improve a part's fit, function, or workability even though the part meets specification.

REQUIRED DOCUMENT(S):

QUALITY IMPROVEMENT REQUEST - [TMI APPENDIX 18A](#)

RESPONSIBILITY:

- Tuning requirements specified on the drawing are the responsibility of the supplier. If no requirement is stated on the drawing, TMI assumes the responsibility. Tuning requests may be initiated by TMI QC or by the supplier.
- TMI Design approval is required in the case of a part being tuned outside the drawing tolerance. Approval will be given by issuance of an ECI or official Design Memo.
- The requesting QC department (TMI or supplier) determines the necessity of improvement to any part by preparing physical parts marked to show the nonconformance. These parts are then reviewed jointly by the supplier and TMI QC to confirm root cause, validity of drawings, feasibility of ECI, and countermeasure concepts related to which part (problem part or mating part) is to be changed. The part to be changed will be determined by judging level of problem found weighed against assembly impact, technical difficulties, timing, and cost.
- Once the concept is finalized, TMI QC will issue a QIR (Quality Improvement Request - TMI Appendix 18A) to the supplier.
- The supplier will conduct investigation for feasibility, timing of implementation, and cost if applicable. The supplier then reports this information to TMI QC by completing and returning the QIR .
- TMI QC will review the QIR, with TMI Purchasing if necessary, and respond to the supplier with approval or rejection by signing the QIR and returning it to the supplier. The supplier may begin part tuning only upon receiving a signed QIR from TMI QC approval. Part tuning may NOT be done without TMI QC approval. If costs are to be incurred by TMI, authorization to proceed may only come from TMI Purchasing.
- After part tuning is completed, TMI QC and the supplier will conduct a joint review of the tuned part to judge effectiveness and to confirm the assembly condition to target.
- If acceptable, the supplier must then revise the inspection standard based on the QIR results. (See Section 7 for instruction for revising the inspection standard.)

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- TMI QC will review the level up part, its revised inspection standard, confirm the results, add the judgment to the QIR as approval, and issue the completed QIR to the supplier. TMI QC will also copy the finalized QIR to TMI Purchasing if needed.
- Approval is intended for the inspection standard and/or modified parts only. It is not intended as approval for tooling or dies. Tooling or die approvals are given only by TMI Purchasing per standard procedures, terms and agreements.
- As part tuning is based on the change of tolerance within the inspection standard and does not affect drawings, C/F tuning is not necessary.

REVISION	REVISED DATE	SECTION	UPDATING DESCRIPTION
0	07/09/01	ALL	Initial Release
1	05/20/03	ALL	Revision Record Added