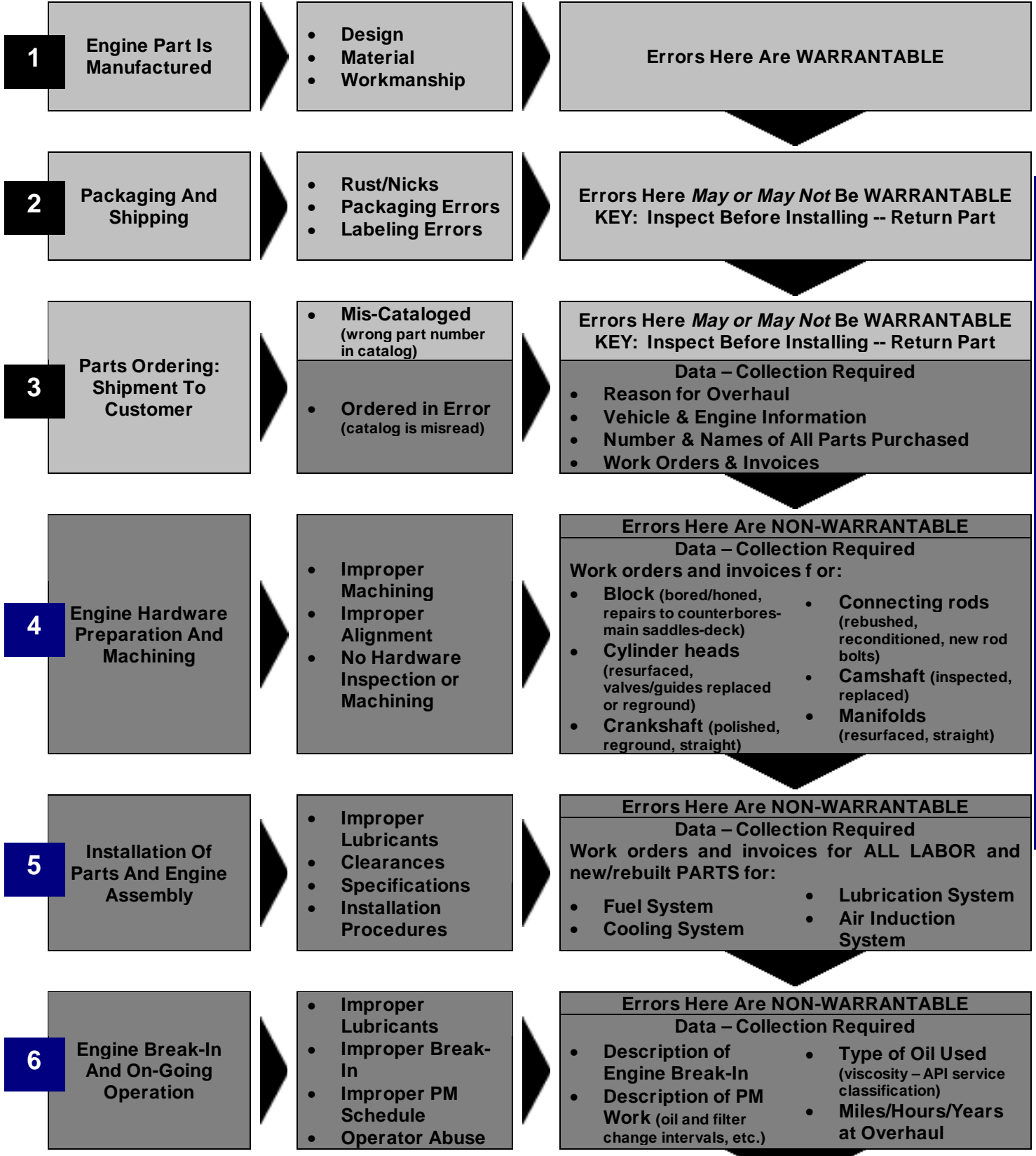


12 STEPS TO FAILURE ANALYSIS

Event

Potential Problem

Warranty Status Data Collection Requirements



PREFAILURE EVENTS

Method

Action

Data Collection Requirements

7

Establish Reason For Investigation

- Interview Operator Regarding Engine Performance

- Data – Collection Required
- Miles/Hours/Years Since Last Overhaul
 - Detailed Description of Complaint and of Engine Operation Prior to Failure

8

Analysis And Testing

- Manometer Readings
- Exhaust Check
- Compression Check

- Data – Collection Required
- Test Results
 - Amount of Oil Used (for oil consumption failure)
 - Oil Analysis Report

9

Preparation For Tear Down

- Identify Related Engine System Components and Related Wear Surfaces to be Kept for Inspection

Data – Collection Required
See Checklist on Bulletin SD-76
(Warranty Policy)

10

Tear Down, File Claim If Appropriate

- Determine If There Is Cause to File Claim
- Arrange & Number Parts for Failure Analysis
- File Claim with Parts and Data from Steps 3-9

- Parts & Data Submitted
- Parts with Related Wear Surfaces
 - Claim Form (SD-63 for HD, SD-16 for Auto)
 - Related Work Orders and Invoices

11

Failure Analysis
By AE Clevite Service Engineering

- Analyze Both Parts and Documentation from Steps 3-10

- Failure Analysis Returned
- Statement of Probable Cause of Failure
 - Related Photos, Etc.

12

Establish Reason For Investigation

- Interview Operator Regarding Engine Performance

POST FAILURE EVENTS