Tennessee Abrasive Inc.

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TROUBLESHOOTING CHART

WITNESSED CONDITIONS

CORRECTIONS IN USUAL ORDER OF IMPORTANCE

ABRASIVE GLAZING 2-3-5-15-13-18-11 ABRASIVE LOADING 2-3-15-7-17-19-11 2-3-7-15-0-17-19-24-11 ABRASIVE GALLING ABRASIVE SPALLING 30-6-22-23 FINISH TOO ROUGH 1-4-6-17-16-7-12 FINISH TOO SMOOTH 2-3-5-18-15-8-13 **EXCESSIVE ABRASIVE USAGE** 1-4-6-16-7 **TAPERED STONE WEAR** 12-22-21-16 **ECCENTRIC STONE WEAR** 14-22-21-16 SLOW STOCK REMOVAL 5-3-2-8-11-15-18 **EXCESSIVE HEAT GENERATION** 10-6-8-11-24-15-20 PART OUT OF ROUND 6-2-3-12-14-15-25 PART BELL MOUTHED TAPERED 26-12-14-25 PART NOT AXIALLY STRAIGHT 31-14-25-32 PART BEING HONED ECCENTRIC TO OD 14-28-29 **SWIPE MARKS IN BORE** 27 **BORE NOT SQUARE TO FACE** 28-14-32 WASHOUT AROUND KEYWAYS, PORTS 6-17

CORRECTIONS

- 1. INCREASE SPINDLE RPM
- 2. DECREASE SPINDLE RPM
- 3. INCREASE RECIPROCATION
- 4. DECREASE RECIPROCATION
- 5. INCREASE FEED RATE
- 6. DECREASE FEED RATE
- 7. INCREASE COOLANTS BASE CONTENT
- 8. DECREASE COOLANTS BASE CONTENT
- 9. CHECK FILTRATION OF COOLANT
- 10. CHECK REFRIGERATION OF COOLANT
- 11. CHECK COOLANT FOR HYDRAULIC OIL CONTAMINATION
- 12. INCREASE RUN-OUT TIME
- 13. DECREASE RUN-OUT TIME
- 14. CHECK SPINDLE TO PART ALIGNMENT
- 15. USE SOFTER ABRASIVES
- 16. USE HARDER ABRASIVES
- 17. USE FINER GRIT STONES
- 18. USE COARSER GRIT STONES
- 19. USE LESS POROUS STONES

- 20. USE MORE POROUS STONES
- 21. CHECK THAT ABRASIVES ARE ON GRADE
- 22. CHECK TOOL SLOTS, PINS, CONE FOR **WEAR**
- 23. TRIAL OTHER ABRASIVES
- 24. USE MORE COOLANT
- 25. CHECK TO SEE THAT FIXTURE IS NOT DISTORTING
- 26. ADJUST OVER-RUN OF STROKE
- 27. USE GUIDES
- 28. TRAM PART FACE TO DETERMINE THAT PART IS SQUARE TO SPINDLE
- 29. ROTATE PART OCCASIONALLY WHILE HONING
- 30. USE LIGHT FEED PRESSURE AT START OF HONE
- 31. USE LONGER ABRASIVES
- 32. CHECK PART ACCURACY PRINT

TO HONING