Pin heat treatment Hardness profile review

17NiCrMo6 and 8620 | Historical data, revised technical presentation

Source date: 24 December 2024
Revision: 10 September 2026 / R1
Document: CNT-HT-2024-1224-R1

Important: This CNC-Turkey edition restates a published historical summary. It is not a new test, laboratory certificate or guarantee of material performance. Original recorded HV values below are unchanged.

1 / Source and material identification

Source: the five-page Doga Makina "Heat Treatment Hardness Comparison Report", dated 24 December 2024. It identifies Report 1 as 17NiCrMo6 and Report 2 as 8620. The old webpage also used the name 20NiCrMo2; equivalence is not established by this summary and requires separate review of material standards and certificates.

2 / Recorded comparison values

Depth labels are reproduced as stated in the source. Their datum is not fully defined; do not interpret them as a verified depth measured from the finished surface.

Reported depth (mm)	17NiCrMo6 (HV)	8620 (HV)
0.5	776	638
1.0	776	586
1.5	746	476
2.0	644	Not tabulated
2.5	557	Not tabulated
3.0	503	Not tabulated

The separate 8620 table additionally records 550 HV at 1.2 mm. "Not tabulated" refers only to the summary comparison table; it is not a zero value or evidence that no deeper measurements exist. The original document includes plotted curves beyond some table entries.

Interpretation and new-order requirements

3 / Limits of the historical evidence

The summary mentions post-grinding evaluation beyond 0.5 mm, but does not clearly establish the measurement surface, grinding allowance convention (radial or diametral), test load, or complete specimen traceability. Its charts and prose are not a substitute for the underlying laboratory records.

For that reason, this revision does not recalculate effective case depth, digitize additional points from the charts, or repeat approximate HV-to-HRC conversions. The reported terminal depth is not automatically the effective hardened depth under a defined acceptance method.

At the tabulated comparison points, Report 1 records higher HV values than Report 2. This observation does not establish universal superiority, impact strength, wear life, fatigue life or suitability for a particular application. Those outcomes require appropriate design review and testing.

4 / What changed in revision R1

CNC-Turkey branding and current contact details replace the former visual identity. Historical source attribution and date remain explicit. The recorded HV table is preserved. Unsupported general performance recommendations, ambiguous maximum-depth claims and approximate HRC conversions are not repeated as conclusions. The 8620 / 20NiCrMo2 naming issue is disclosed.

5 / Specify a new pin manufacturing order

Provide an approved drawing and material certificate requirements, delivery condition, quantity, final hardness criteria, heat-treatment and finishing sequence, and inspection scope. Define the final measurement surface, depth datum, test method/load, sampling plan and acceptance threshold before production.

For matched pins and bushings, include mating dimensions and surface requirements. Any functional, wear or load testing must be agreed separately. CNC-Turkey reviews new component manufacturing to the specified requirements; this archive review is not a repair proposal or a standing performance guarantee.

Request a technical review

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Send the drawing, material specification, quantities and destination country.