



Specification of Block Forging Die Steel

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Former
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Page Number : 1 / 2

Block Forging Die Steel will be produced according to the specification stated below.

Material of Block Forging Die Steel: 2714 ISO-B MOD

DIN 1.2714 Chemical Analyses:

<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Cr</u>	<u>Ni</u>	<u>Mo</u>	<u>V</u>
0.50	0.10	0.65	0.000	0.000	1.00	1.50	0.45	0.07
0.60	0.40	0.95	0.030	0.030	1.20	1.80	0.55	0.10

2714 ISO-B MOD Target Chemical Analyses:

<u>C</u>	<u>Si</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Cr</u>	<u>Ni</u>	<u>Mo</u>	<u>V</u>
0.55	0.25	0.95	0.015	0.005	1.10	2.00	0.75	0.10

- When the forging die steel is above 500 kg., charge and lot numbers will be cold / indentation marked according to the drawing in page 2/2
- Front Axle block forging die steel and forging die steel above 2000kg; double forging die (upper and lower dies) steel will be produced from the same heat number (charge number) and from the same heat treatment lot.
- Hardness measurement of forging die steels will be done on engraving work surface after removal of material by grinding-off %1 thickness. Hardness measurements will be done by Equotip equipment.(portable hardness tester)
- Hardness values of 2714 ISO-B MOD forging die steels, for the front axle block forging die and its adaptors, must be min.38 HRc (min.355 HB) on the core region and max.41HRc (max.382 HB) on the surface; for the inserted dies and other block forging dies, hardness values of 2714 ISO-B MOD must be 42-45 HRc (390 – 420 HB).
- Forging die steels that are above 2000 kg and front axle forging die steels; there should be max.2 HRc difference between the values of surface hardness and core hardness.

Distribution: STN, UPL, KLT, DVM, LAB,

Prepared By: Abit ÇOLAK

Approval: Selçuk TETİK

Yetkili imzalar orijinal dosyada muhafaza edilmektedir. Elektronik ortamda imzasız geçerlidir.

- Magnetic Particle Crack Inspection and Ultrasonic Test will be applied to the forging die steels and according to the test results; there should not be any discontinuity (crack, overlap, inclusions, porosity, cavity ... etc) on the surface and in the structure of the forging die steels. In order to remove the surface defects, max. 5.0mm grinding may be done, but if the defect depth is more than 5.0mm, an approval of Parsan should be taken before shipping.
- Dimensions of the Front Axle Forging Dies: 2150 x 750 x 550mm (± 5)
- Dimensions of Front Axle Die Adaptors: 2100 x 760 x 350mm (± 5)
- Dimensions of DG 40's Circular Die Holder: 1650 x 1000 x 550mm (± 5)
- Dimension tolerance is ± 5 mm.

