

1. **Grachev Vladimir Alexandrovich. The 75th anniversary of birth.**
2. **Kechin Vladimir Andreevich. The 75th anniversary of birth.**
3. **M.V. Baranov, A.V. Sulitsin, R.K. Mysik, S.V. Brusnitsyn. Technology of continuous refining of aluminum in combined casting and rolling process.**

The article deals with issues concerning the preparation of the molten aluminum alloy before casting in a combined casting and rolling process in the foil production. The complex technology of aluminum melt continuous refining in running capacity was suggested. The analysis of data on the content of hydrogen and nonmetallic inclusions in various parts of casting tract was carried out. The results of experiment indicate a high efficiency of continuous refining technology of aluminum melt in running capacity. This technology ensures high efficiency removal of hydrogen and nonmetallic inclusions from the melt.

Key words: aluminum, hydrogen, nonmetallic inclusions, refining, running capacity.

4. **V.B. Dudnichenko. 25th anniversary of collaboration with plant «Amurlitmash» branch of PJSC «Dalenergomash».**

The article presents the results of activity of «Monolith» LLC for 25 years of working together with the plant «Amurlitmash» of PJSC «Dalenergomash», and describes some samples of shot-blasting equipment, widely used at Russian factories.

Key words: shot-blasting equipment, chamber, drum, filter.

5. **V.A. Grachev. Application of induction furnaces and gas cupolas for cast iron smelting in one melting shop.**

In the foundry of the Penza Compressor Plant, cast iron smelting is currently performed in induction furnaces and gas cupolas. The author proposes a design of gas cupola furnaces and a technology of smelting high quality cast iron in gas cupolas that stood a test of time. The technical properties of cast irons produced in coke and gas cupola furnaces have been investigated. The author demonstrates that the properties of the cast iron from gas cupola furnaces are higher, than in coke cupola, which has been achieved by decreasing the detrimental sulfur and gas content. It is noted that combination of gas cupolas and induction furnaces is particularly effective. The article represents the results of the implementation of both furnace types as progressive methods of cast iron smelting.

Key words: cast iron smelting cupola furnace, production of high quality cast iron, gas cupola and induction furnace for production of high quality cast iron.

6. **E.N. Budanov. Achievements and experience of the leading castings producer for innovative Russian freight cars — Tikhvin Freight Car Building Plant.**

The article deals with the results of large-scale modernization of foundry production in Russia in the 21st century. The results of the high-quality comparative analysis and efficiency of V-Process technology for production of large railway steel castings are described. The benefits of use of one casting technology in a certain period of time and under specific circumstances of production of the set mix of castings are in first place most illustrative shown on the example of the new production in Russia — TVSZ, Tikhvin

Key words: modernization of foundry production, efficiency of vacuum molding, large steel railroad castings, import substitution of castings.

7. U.f. Voronin, d. SC.. Professor Volgograd GTC. Rapid elimination of defects in castings.

The article describes methods of rapid detection and elimination of defects in castings, in particular gas and shrinkage defects. Reasons of defects formation and methods of their prevention are explained.

Key words. Gas cavities and shrinkage cavities, porosity, defects.

8. N.S. Ranich, V.E. Haychenko, I.A. Filippova. Experience using homemade flux for electroslag melting.

Proposed the composition of a flux for electroslag chillcasting technology of melting of casting alloys. Describes the process of obtaining the flux, its composition and application features.

Key words: the slag, flux, electroslag casting, gravity diecasting, electrode.

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