<TN>Table A1.</TN> <TT>Ganz & Co. in cartels regulating the home market</TT>

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| --- | --- | --- | --- |
| <TCH>Product | Founding//Reorganization/Dissolution | Member Companies (other than Ganz & Co.) | Terms of Agreement</TCH> |
| <TB>Cast steel tires[[1]](#footnote-1) | January 29, 1922/[1927] | “Factories”: Ganz, Győr (Magyar Wagon és Gépgyár, Győr)  “Narrow-gauge railways companies”: 4 small producers | Scope: Cast steel tires and parts, gear sets, axles  Agreed on:   * “Narrow-gauge railway companies” place orders to cover their entire demand on the home market only by “factories”, factories allocate orders among themselves * Price setting by “factories” * “Factories” allocate orders on specific products to “narrow-gauge railway companies” * “Factories” render export allowances to “narrow-gauge railway companies” |
| Cast steel products for narrow gauge railway companies[[2]](#footnote-2) | August 6, 1927/December 31, 1937  February 4, 1938/end of 1947 | “Cast steel factories”: MÁVAG, (WM), Győr, GANZ  “Narrow gauge railway companies” =  Magyar-Belga Fémipari Rt., Orenstein & Koppel Magyar Rt., the Narrow gauge railway department of the English-Hungarian Bank, Roessemann és Kühnemann – Epp és Fekete Egyesült Gépgyárak | Agreed on:   * - “Narrow-gauge railway companies” oblige themselves to cover their entire demand on the home market only by “cast steel factories” that allocate themselves * - “Cast steel factories” transfer all inquiries for orders on specific narrow-gauge equipment to “narrow-gauge railway companies” * - “Cast steel factories” stop producing gear sets for narrow-gauge railway companies and transfer all inquiries for ordering these to “narrow-gauge railway companies” * - “Cast steel factories” maintain the right to offer their narrow-gauge equipment directly to prospective customers, however on prices equal to that of the “narrow-gauge railway companies”   - No arbitrational tribunal agreement  Quota allocation: no further data |
| Springs[[3]](#footnote-3) | March 14, 1929/December 12, 1935 | Magyar Acélárugyár rt. (Hungarian Steel Works Ltd., hereafter M. Acél), Győr | Supplementary agreement to the previous agreement  Agreed on:  - M. Acél bought Magyar-Belga Fémipari Rt. in 1928, M. Acél stops production of narrow gauge railway equipment. For compensation, M. Acél becomes exclusive supplier of springs for all type of railway carriages by member companies.  - M. Acél holds onto the production of gear sets for narrow gauge railways.  - M. Acél does not extend production of parts to locomotives, carriages, cars, and lorries above the status from December 31, 1928 |
| Cast steel[[4]](#footnote-4) | June 24, 1927/November 28, 1932  November 28, 1932/end of 1947 | MÁVAG, WM, Győr  MÁVAG, Győr | Scope: All cast steel products < 3000 kg, except for parts of “producers’” own final products (in the case of Ganz, included demand of Ganz Electric Ltd.)  Agreed on:   * Quota allocation in Hungary: Ganz 22%, MÁVAG 33%, WM 22%, Győr 16% of all orders, distribution according to weight of products * WM and Győr won’t take up production of compound steel * Common price setting   Quota allocation in Hungary: Ganz 36%, MÁVAG 41+3%, Győr 20%[[5]](#footnote-5) |
| Bridges | Unknown (founded in 1931) | MÁVAG, Győr | No further data.  Two specific agreements re: bridges on the Danube and bridges for the army were concluded in 1931, but they were never signed. |
| Tubes[[6]](#footnote-6) | December 17, 1926  May 16, 1927  January 1, 1929–1937 | MÁVAG- Friedrich Siemens - Schlick-Nicholson Gép-, Waggon- és Hajógyár Rt.  MÁVAG – Friedrich Siemens – Dr. Lipták és Társa Építési és Vasipari Rt.  MÁVAG, Fr. Siemens | Market allocation: estimated quotas Fr. Siemens 45%, MÁVAG 35%, Schlick-Nicholson 20%  MÁVAG and Fr. Siemens agreed with Lipták & Co. to pay 40,000 pengő for 5 years to Lipták to stop production[[7]](#footnote-7)  Ganz, which merged Schlick-Nicholson and Lipták agreed to produce tubes only as part of heat exchangers and his other furnaces and machines: compensation is 2,5% of partners’ net sales prices  Ganz received 10,000 pengő as a compensation for Schlick sales, payments to Lipták finished by January 1, 1928 |
| Diesel and gas engines[[8]](#footnote-8) | Signed November 8, 1929  Renewed March 6, 1935  February 8, 1939[[9]](#footnote-9)– January 31, 1947 | Martos & Herz, Láng | Scope: Sales of diesel and gas engines > 30 horse power (HP) in Hungary  Quota allocation: Ganz 65%, (Martos & Herz + Láng) 35%  Quota allocation: Ganz 42.3%, Láng 34.7%, Martos & Herz 23%  Allocation of engines according to HP: Ganz received orders on engines over 150 HP, Láng 120–150 HP, Martos & Herz: < 120 HP |
| Screws[[10]](#footnote-10) | June 16, 1926–December 31, 1928 | WM + 7 small producers | Terms of delivery to Ganz & Co. as a main buyer |
| Iron constructions[[11]](#footnote-11) | Unknown–September 1, 1935  September 1, 1935–August 12, 1948 | MÁVAG, Győr  Győr (with Oetl Antal Iron Foundry and Machine Building Company and Ajax Steel Works), MÁVAG, + 8 other members | Gentlemen’s agreement  Quota allocation: Győr 26.83%, Ganz 19.59%, MÁVAG 17.30%  Prelude to agreement 1935: Oetl stops production till  1945; Győr receives the quota of Oetl: compensation is 200.000 pengő/year by Győr |
| Furnaces | 1923–1927  1928  February 15, 1935 – December 31, 1939[[12]](#footnote-12)  Renewed agreement  March 18, 1938–December 12, 1945, finally dissolved January 16, 1948[[13]](#footnote-13) | Röck  Röck, Láng  Láng, Röck  Láng, Röck, first machine building factory of Brünn | Scope: All furnaces used in industry exclusively for central heating, excluding furnaces used in ships.   * Quota allocation: Ganz 54%, Láng 15%, Röck 31% * In supplementary agreement dated March 18, 1935, Láng agreed to stop producing steam turbines in its factory in Budapest until December 31, 1939.   Quota allocation: Ganz 48.6%, Láng 13.5%, Röck 13.5%, 27.9% |
| Containers | December 8, 1937–December 31, 1947 | Győr, Láng, Oetl & Co. + 8 small companies | Ganz & Co. 21.70%, Győr/MÁVAG 14.28%, Láng 11%[[14]](#footnote-14) (+ Röck 11%, merged into Láng in 1938), Oetl 8% |
| Refrigerators[[15]](#footnote-15) | 1925–1928  December 22, 1928 – 1931  November 26, 1931–1937  January 1, 1938–December 31, 1940 | Röck, Schlick-Nicholson  Röck  Röck, Alfa Separator | Scope: All types of refrigerators, including special equipment for slaughterhouses  Schlick received all orders placed by the municipal authority of Budapest  Scope: All types of refrigerators, including special equipment for slaughterhouses + 50% of the value of related equipment   * Quota allocation: Ganz 65%, Röck 35% * One declared major goal of cooperation: capability to export   Quota allocation: Ganz 45%, Röck 30%, Alfa separator 25% |
| Steam turbines[[16]](#footnote-16) | March 1935–1940 (Note: not yet in operation in 1937) | Hungarian Brown Boveri Works (HBBW) | Scope: Turbo generators attached to steam turbines  Ganz & Co. will not produce turbines in Hungary but will buy them from Láng |
| Comprehensive agreement[[17]](#footnote-17) | Previous agreements signed in 1908 and 1927; renewed in 1934/1935 and 1938 | Láng, Röck[[18]](#footnote-18) | Agreement in 1935 on the production, installation, and delivery of spare parts in 11 product groups and on preparation for specialization in production through market allocation  Model: agreements of Austrian (1908) and Czechoslovak companies (1936)[[19]](#footnote-19) |
| Comprehensive agreement with Láng towards specialization[[20]](#footnote-20) | May 11, 1935 | Láng | Agreed:   * Láng received license on Ganz-Jendrassik crude oil engines in Hungary, Soviet Union, Yugoslavia, Turkey, Greece, Palestine * Quota allocation of such engines in Hungary: Ganz 66.6%, Láng 33.3% * Mutual refrain from production of specific types of engines and their parts until June 30, 1940, including division of supply of crude oil engines in Hungary (Ganz 55%, Láng 45%, other machines Ganz 60%, Láng 40%) * Mutual preferential supplier status * Consultation before the introduction of new products (with HGCB) |
| Heavy current installations[[21]](#footnote-21) | First agreement signed in 1921, renewed in 1927, 1930 and 1933 | AEG Union, Hungarian Brown Boveri, Hungarian Siemens-Schuckert | Terms of delivery and installation |
| Electric meters[[22]](#footnote-22) | March 1, 1926 - 1934 | Hungarian Siemens–Schuckert Company, Unio Magyar Villamossági Rt.+ 4 small competitors | Scope: AC-meters (single and polyphaser) and related equipment  Agreed on prices and terms of delivery |
|  | September 10, 1934–1947? | Hajós & Szántó | AC-meters (single and polyphaser) and related equipment  Agreed on:   * Delivery to Budapest Electric Works Ganz 60%, Hajós & Szántó 40%, delivery to all other customers: Ganz 65%, Hajós & Szántó 35% * Common price setting, mutual defence in case of bids for deliveries to public authorities * No investment with competitors[[23]](#footnote-23) |
| New ships to be sold in Hungary[[24]](#footnote-24) | May 14, 1927–1934 | Erste Donaudampfschiff-gesellschaft, DDSG (Danube Steam Shipping Company) | Quota allocation: Ganz 67.5%, DDSG 32.5% (sales control every 3 year)  Orders on dredgers, grain elevators, ships with oil and gas engines will be allocated to Ganz |
| Reparation of ships | May 14, 1927–December 12, 1931 | DDSG, Linz, and small Austrian shipyards | Allocation of orders to producers according to types of ships  Standard prices for maintenance |
| Railroad safety equipment | May 28, 1926, renewed January 27, 1930 (extended for 10 years) | MÁVAG, Győr, Telefongyár rt. (Telephone factory Ltd.) | No further data  Interrelated agreements coordinating sales in Hungary, Bulgaria, Yugoslavia and Romania |
| Railway carriages  (‘wagon cartel’) | July 22, 1906–December 31, 1910  January 1, 1911–December 31, 1918  August 1, 1925–December 31, 1928  January 1, 1929–December 31, 1934  August 17, 1938–August 12, 1948 | Győr, Arad, Schlick, Danubius[[25]](#footnote-25)  Győr, Arad, Schlick[[26]](#footnote-26), Kistarcsa[[27]](#footnote-27)  Győr  Members in 1938: Győr, Orenstein & Koppel, Roessemann & Kühnmann – Epp & Fekete | Allocation of orders during the whole period:  general quota  + quotas allocating orders by a few large public companies  + additional agreements by Ganz - Győr dividing total quota among them, from 1928 Ganz 72 %, Győr 28 % (Basically, orders on carriages for regular gauge were allocated to Ganz and Győr, orders on narrow gauge to all members.)  Common price setting  General quota: Ganz 36.5%, Győr 23%, Arad 22%, Schlick 11.5%, Danubius 7%  General quota: Ganz 41.1075%, Győr 21.735%, Arad 20.79%, Schlick 10.8675%, Kistarcsa 5.5%  1929–1948: no major changes to structure of agreement or relative share of member companies |
| Railway carriages for narrow gauge railways | Existed during the Great Depression  Renewed January 1, 1938–December 12, 1943; extended until December 12, 1948 | MÁVAG, Győr (probably a few other members)  Ganz-group: Ganz + Győr  group of enterprises:  Orenstein & Koppel6 + Budapest, Roessemann and Kühnmann – Epp and Fekete, Budapest = | No further data, only: no arbitrational tribunal agreement signed  In connection with the wagon cartel (see above), this agreement fixed:   * Orders on railway carriages for normal gauge were to be allocated only to Ganz group * Orders on railway carriages for narrow gauge railways: Ganz group 48%, group of enterprises 52% |
| Axes of railway carriages | Existed in 1935 | MÁVAG | Scope: axes delivered to the Hungarian State Railways (Magyar Államvasutak, MÁV)  MÁV allocated orders according to quotas set by members |
| Railroad switches[[28]](#footnote-28) |  | Hungarian companies MÁVAG, Győr ... | One agreement regulated the home market, another regulated exports |
|  |  | Hungarian and foreign companies: 3 different agreements | Allocating market shares |
|  |  | Hungarian producers (MÁVAG, Ganz, Győr) represented by Kincstári Jogügyi Igazgatóság [Judicial Directorate of the Treasury],  Austrian producers,  Czechoslovak producers, among them the Witkowitz Iron Works |  |
|  |  | Hungarian, Austrian, and Czech companies + Sartid (Serbia) |  |
|  | September 13, 1930 | Hungarian, Austrian, and Czech companies + Sartid (Serbia) + Orenstein (Germany) |  |

1. File Z425-5-19 Acélkerékegyezmény, német nyelvű [Agreement on cast steel tires, wording in German]. Budapest, January 29, 1922, file in Magyar Nemzeti Levéltár (Hungarian National Archives (MNL). [↑](#footnote-ref-1)
2. File Z425-2-19, Acélegyezmény, kisvasúti egyezmény, eredeti példány (Cast ateel agreement on narrow-gauge railways, original exemplar), Budapest, August 6, 1927 and related correspondence, MNL. [↑](#footnote-ref-2)
3. File Z425-5-29, letter from Ganz & Co. (unsigned) to Károly Dunkel, CEO M. Acél, Budapest, December 1, 1928, MNL. [↑](#footnote-ref-3)
4. File Z425-2-19, Memorandum (written by a manager by Ganz & Co.) Budapest, May 18, 1938, and Acélegyezmény. Eredeti megállapodás. (Cast steel agreement. Original agreement) Budapest, June 24, 1927, handed in at the Royal Hungarian Budapest, November 28, 1931 Minister for Trade, MNL. One declared goal of the agreement was maintaining members’ export capacity as a primary interest of the national economy. [↑](#footnote-ref-4)
5. 3% extra quota served to pay for MÁVAG’s debts to Ganz and Győr from the previous cartel agreement. [↑](#footnote-ref-5)
6. File Z425-2-22, Letter from Ganz & Co. to MÁVAG and Friedrich Siemens Vasöntő és Hőtechnikai Gyár rt. Budapest, 1929, January 16, and registration of the cartel in January 1932 according to letter from Aurél Halla, council of the Minister for Trade to Róbert Lénárd (Ganz & Co., representant of the cartel), Budapest, 1932, January 28, MNL [↑](#footnote-ref-6)
7. File Z425-2-22, Letter from MÁVAG and Friedrich Siemens Vasöntő és Hőtechnikai Gyár rt. to Dr. Lipták és Társa Építési és Vasipari Rt. Budapest, 1927, May 16, MNL [↑](#footnote-ref-7)
8. File Z425-3-23, Szívó- és földgázmotoregyezmény (agreement on Diesel and gas engines), Budapest, March 6, 1935, and February 8, 1938; and letter from Ganz & Co. to the Ministry for Industry, Budapest, January 15, 1948, MNL. [↑](#footnote-ref-8)
9. File Z425-3-23, Szerződés (Contract signed by Ganz & Co., Láng Factory Ltd., and Martos és Herz Motor- és Gépgyár (Martos & Herz Engine and Machine-Building Factory), Budapest, February 8, 1939, MNL. One declared goal of the agreement was maintaining members’ export capacity as a primary interest of the national economy. [↑](#footnote-ref-9)
10. File Z425-2-21, Csavaregyezmény. Megállapodás (contract on screws, agreement). [Budapest], February 12, 1926, MNL. [↑](#footnote-ref-10)
11. File Z425-3-23, letter from Ganz & Co. to the Ministry for Industry (unsigned), Budapest, [August 1948], MNL. [↑](#footnote-ref-11)
12. File Z425-3-25, record of negotiations between Ganz & Co., represented by Pál Práger (CEO), Lipót Hubert (vice CEO) and Andor Stein (director), and Láng Machine-building Factory Ltd., represented by Gusztáv Láng (vice CEO) and Dezső Mihályfi (general manager), Budapest, May 11, 1935, MNL. [↑](#footnote-ref-12)
13. File Z425-5-28, questionnaire, returned by Ganz & Co. to Ministry for Industry, Budapest, January 16, 1948, and related documents and correspondence, MNL. [↑](#footnote-ref-13)
14. Bencze, Géza, *A Láng gépgyár története az alapítástól az állami tulajdonba vételig*. In *Tanulmányok Budapest múltjából*, Vol. 33 (2007), 85–112, 103. [↑](#footnote-ref-14)
15. File Z425-5-27, letter from Ganz & Co. to Röck István Gépgyár Rt. and to Első Brünni gépgyár Rt., Budapest, November 26, 1931; and agreement among Ganz & Co., Röck István Gépgyár Rt, Első Brünni Gépgyár Rt., and Alfa Separator Terjgazdasági, Gép- és Bádogárugyár, Budapest, no date, MNL. [↑](#footnote-ref-15)
16. File Z425-3-23, protocol: agreement between Ganz & Co. and Hungarian Brown Boveri Works, signed by Pál Práger (CEO) and Ferenc Ratkovszky (Director) for Ganz & Co., and Béla Stark (CEO) and Gusztáv Friedmann (Director) for HBBW, included in a letter to dr. Viktor Hammersberg (manager), Ganz & Co., Budapest, April 17, 1934; File Z425-3-24 Emlékeztető, Budapest, May 14, 1935 (Pro memoria Re: Negotiations between Ganz & Co., represented by Lipót Hubert (Vice CEO) and Ferenc Ratkovszky (Director), and Hungarian Brown Boveri Works, represented by Béla Stark (CEO) and Gusztáv Friedmann (Director), both in MNL. [↑](#footnote-ref-16)
17. File Z425-3-25, A magyar gépgyárak közt kötött kartellszerű megállapodások (cartel-type agreements among Hungarian machine-building companies) Budapest, 1908 and letter by Magyar Vas- és Gépgyárak Országos Egyesülete (Association of Hungarian Iron Works and Machine-Building Companies) to Ganz & Co.. Budapest, March 14, 1908, MNL. [↑](#footnote-ref-17)
18. In 1938, backed by HGCB, Láng took over the majority of Röck’s shares. [↑](#footnote-ref-18)
19. File Z425-3-25, Czechoslovak cartel agreement and letter from Anton Hödl (CEO, Erster Brünner Maschinenfabriks-Gesellschaft, Brünn) to Adolf Farkas (Director, Röckwerke, Brünn), March 19, 1937; Anl.: Hauptpunkte für den Kartellvertrag zwischen den Firmen ČKD, Šz und IB-BK, vereinbart am 26. Juni 1936 (Attachment: Main points of cartel agreement by companies ČKD, Šz and IB-BK, agreed on June 26, 1931), MNL. [↑](#footnote-ref-19)
20. File Z425-3-25, letter from Lipót Hubert (Vice CEO, Ganz & Co.) to Dr. István Perényi (Director, HGCB), Budapest, May 16, 1934; Attachment: Feljegyzések a Ganz-Láng konkurrenciáról (notes about the competition between Ganz and Láng) and attachments to Ganz-Láng agreement and Iratjegyzék (list of documents) Budapest, 1935 May 11, containing letter from Ganz & Co. Respectively Láng to HGCB, agreements between Ganz and Láng, protocols etc., MNL. [↑](#footnote-ref-20)
21. File Z425-3-23, Erősáramú kartellegyezmény (cartel agreement on heavy current installation 1921, 1927, 1930, 1933) and related correspondence. The agreement was presented at the Ministry for Industry Budapest, November 3, 1931, MNL. [↑](#footnote-ref-21)
22. File Z425-2-20, Magyar Elektromos Számláló Szövetség Szerződése (contract of the Hungarian electric meter association), Budapest, March 1926, signed by Áron H. Mérőkészülékek Gyára, Danubia Légszeszmű, Világítási és Mérőkészülékek Gyárt Rt., Engel Károly, Budapest, Erőátviteli és Világítási Rt., Ganz-féle Villamossági Rt., Magyar-Siemens-Schuckert Művek Villamossági Rt., Unio Magyar Villamossági Rt., MNL. [↑](#footnote-ref-22)
23. File Z425-2-20, Számlálóegyezmény Ganz – Hajós és Szántó (agreement on AC-electric meters between Ganz & Co. and Hajós & Szántó Ltd.), Budapest, September 10, 1934, MNL. One main reason for agreeing on a cartel was declared to be “maintaining production in Hungary”. [↑](#footnote-ref-23)
24. Szekeres, József, *Az újpesti hajóépítés története II. (1912–1944)*. In: *Tanulmányok Budapest múltjából* Vol. 15 (1963) 637–693, 650–653. [↑](#footnote-ref-24)
25. In 1911, Danubius was merged into Ganz & Co. [↑](#footnote-ref-25)
26. In 1927, Schlick was merged into Ganz & Co. [↑](#footnote-ref-26)
27. In 1927, Kistarcsa was merged into Ganz & Co. [↑](#footnote-ref-27)
28. Győri, György; Szabó, László, *A budapesti MÁVAG története*. Budapest, Népszava/Szikra ny., 1953, 119. [↑](#footnote-ref-28)