

COMPARATIVE ANALYSIS OF ORGANIZATIONAL AND ECONOMIC PROBLEMS OF AIRCRAFT ENGINE PRODUCTION

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The analysis of the sub-industry current condition and effectiveness of its functioning is accomplished. The reasons for low competitiveness of Russian aircraft engine production and the ways for overcoming the sub-industry systemic crisis were analyzed.

Production performance and work plans of Russian aircraft engine manufacturing enterprises

Aircraft engine production is an aviation sub-industry to a great extent determining its technological level. It's necessary to emphasize that few of the countries possessing aircraft enterprises are able to develop and manufacture engines independently. Actually only USA, Europe and Russia have such competencies. Though Russian aircraft engine production has been in a condition of a systemic crisis since

Main production performance characteristics of the USA aircraft engine production in 1997, 2002 and 2007

Parameter /year	1997	2002	2007
Headcount	82 892	72 284	75 409
Including shop floor employees	48 112	40 571	44 284
Revenues, million \$/year	22 660	24 246	36 067
Tangible costs, million \$/year	11 348	11 629	18 909
Added value, million \$/year	11 572	12 359	17 359
Salary, million \$/year	5 335	5 399	4 804
including salary of shop floor employees	1 933	1 935	2 383
compensations, million \$/year	1 101	1 285	1 522
Investments, million \$/year	669	830	693
including buildings	77	102	105
including equipment	592	728	588
Amortizable assets cost, million \$	7 630	6 813	10 263
Decommissioning, million \$/year	313	421	518
Amortization, million \$/year	613	434	455
other expenditures, million \$/year	380	1 284	2 526

early 1990s. Catastrophic recession of profile products manufacture and enterprise revenue since late 1990s - early 2000s has been changed

with a period of reconstructive growth of production. Total amount of gross revenues of all gas turbine engine manufacturing enterprises in Russia in 2010 made more than 82.8 billion rubles. Still this level is first of all significantly lower than foreign aircraft engine production and even that of separate engine manufacturing companies and secondly it does not correspond to the still significant potential of the sub-industry not providing for its effective loading. In table there are the main production performance characteristics of the USA aircraft engine producers in 1997, 2002 and 2007 according to official sources. Hereafter this table data is used for other comparisons and types of analysis.

As it can be seen in Table 1 the total revenues of American engine manufacturing enterprises exceed the Russian enterprises total revenues more than 10 times (calculated by the official rate of exchange).

Hereafter we consider aircraft various type gas turbine engine production including double-flow, reheated, turbo-propeller and turbo-shaft engines.

Ukrainian aircraft industry appeared and developed in the USSR as a part of the country integrated aircraft industry.

US Economic Census statistics digest with detailed information on production activities of the USA economy industries and sub-industries issued once every 5 years, in particular in 1997, 2002 and 2007. Industry as determined in Law # 165 of 08.12.2003.

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