

Рис. 6. Высотные характеристики некоторых звездообразных моторов 1940 — 1946 гг.

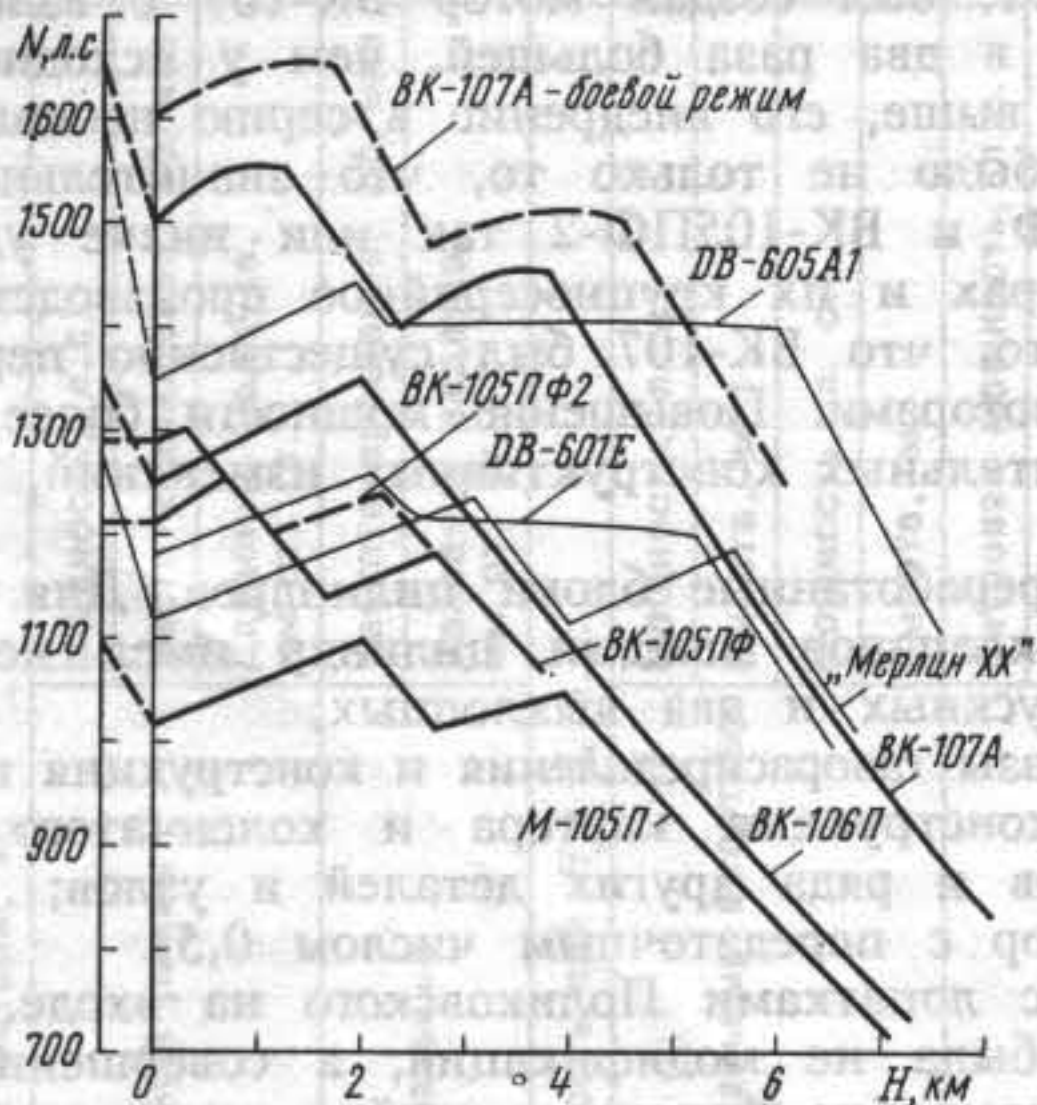


Рис. 4. Высотные характеристики моторов ОКБ В. Я. Климова

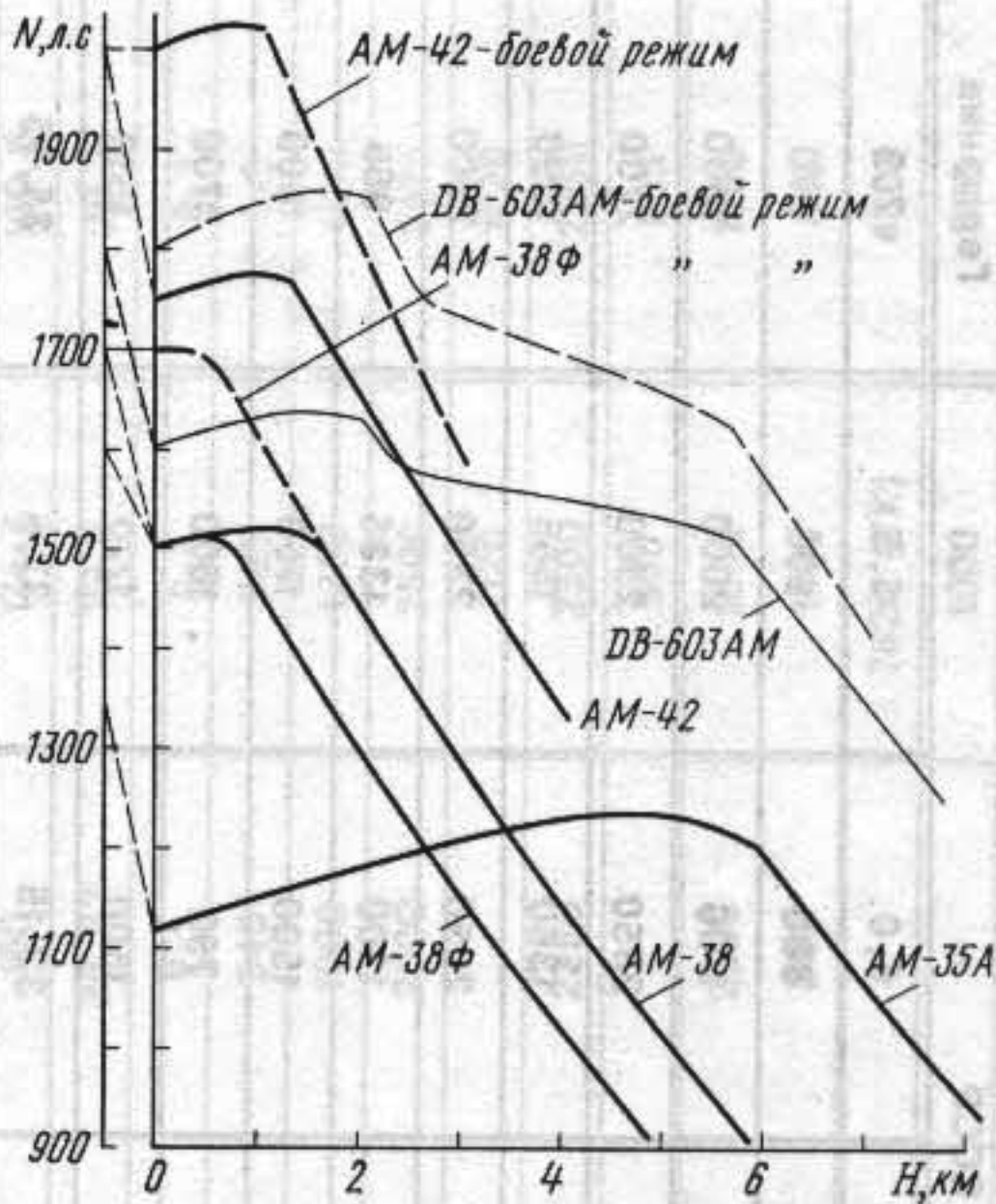


Рис. 5. Высотные характеристики моторов ОКБ А. А. Микулина

DB601A
1175 hp on take-off
1100 hp @ 2100m

DB601N
1215 hp on take-off
1120 hp @ 1500m
1085 hp @ 4000m

DB601E
1350 hp on take-off
1250 hp @ 2000m
1200 hp @ 5100m

DB605A/1
1475 hp on take-off
1250 hp @ altitude

DB605AM
1560 hp on take-off
1450 hp @ 2000m
1350 hp @ 6000m

BMW-801D
Weight - 1014kg
Take-off power - 1600hp (@2700rpm, @990mm.Hg.)
nominal power - 1460hp @ 700m (@2400rpm, @960mm.Hg.)
nominal power - 1300hp @ 4100m (@2400rpm, @960mm.Hg.)

DB603AM
Weight - 970kg
Take-off power - 1800hp (@2700rpm, @1090mm.Hg.)
nominal power - 1600hp @ 0m (@2500rpm, @955mm.Hg.)
altitude regime- 1510hp @ 5700m

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M-63
Weight - 515kg
Take-off power - 1100hp @ 0m (@2300rpm, @1065mm.Hg.)
Nominal power - 1000hp @ 1800m (@2200rpm, @915mm.Hg.)
Nominal power - 900hp @ 4500m (@2200rpm, @915mm.Hg.)

ASh-62IP
Weight - 560kg
Take-off power - 1000hp @ 0m (@2200rpm, @1050mm.Hg.)
Nominal power - 1000hp @ 1500m (@2100rpm, @900mm.Hg.)
Nominal power - 840hp @ ? m (@2200rpm, @915mm.Hg.)

AM-35A
Weight - 830kg
Take-off power - 1350hp @ 0m (@2050rpm, @1240mm.Hg.)
Nominal power - 1120hp @ 0m (@2050rpm, @1040mm.Hg.)
Nominal power - 1200hp @ 6000m

AM-38
Weight - 860kg
Take-off power - 1600hp @ 0m (@2150rpm, @1285mm.Hg.)
Nominal power - 1500hp @ 0m (@2050rpm, @1180mm.Hg.)
Nominal power - 1500hp @ 1650m

AM-38F

Weight - 880kg
Take-off power - 1700hp @ 0m (@2350rpm, @1360mm.Hg.)
Nominal power - 1500hp @ 0m (@2050rpm, @1200mm.Hg.)
Nominal power - 1500hp @ 750m

M-105PA

Weight - 570kg
Take-off power - 1100hp @ 0m (@2600rpm, @950mm.Hg.)
Nominal power - 1020hp @ 0m (@2600rpm, @910mm.Hg.)
Nominal power - 1100hp @ 2000m
Nominal power - 1050hp @ 4000m

M-105PF

Weight - 620kg
Take-off power - 1210hp @ 0m (@2600rpm, @1050mm.Hg.)
Nominal power - 1210hp @ 0m (@2700rpm, @1050mm.Hg.)
Nominal power - 1260hp @ 700m
Nominal power - 1180hp @ 2700m

VK-105PF2

Weight - 620kg
Nominal power - 1290hp @ 0m (@2700rpm, @1100mm.Hg.)
Nominal power - 1240hp @ 2000m (@2700rpm, @1100mm.Hg.)
Nominal power - 1180hp @ 2700m
Nominal power - 820hp @ 6500m
Nominal power - 710hp @ 7800m

VK-107A

Weight - 765kg
Take-off power - 1650hp @ 0m (@3200rpm, @1100mm.Hg.) combat regime 30 min.
Nominal power - 1500hp @ 0m (@3000rpm, @1060mm.Hg.)
Nominal power - 1550hp @ 1200m
Nominal power - 1450hp @ 3800m

M-82

Weight - 870kg
Take-off power - 1700hp @ 0m (@2500rpm, @1140mm.Hg.) forservice 10 min limit.
Nominal power - 1540hp @ 2050m (@2400rpm, @950mm.Hg.)
Nominal power - 1330hp @ 5400m (@2400rpm, @950mm.Hg.)

M-82F

Weight - 870kg
Take-off power - 1700hp @ 0m (@2500rpm, @1140mm.Hg.) nominal to 1600m.
Nominal power - 1540hp @ 2050m (@2400rpm, @950mm.Hg.)
Nominal power - 1330hp @ 5400m (@2400rpm, @950mm.Hg.)

ASh-82FN

Weight - 900kg
Take-off power - 1850hp @ 0m (@2500rpm, @1180mm.Hg.) forservice up to 2000m.
(TsAGI book states - 1200 mm.Hg., Pilot manual - up to 5 min)
Nominal power - 1630hp @ 1650m (@2400rpm, @1000mm.Hg.)
Nominal power - 1430hp @ 4650m (@2400rpm, @1000mm.Hg.)

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Sources:

"Aircraft Construction in the USSR"
A.T.Stepanets. "Yak Fighters in WWII" [ISBN 5-217-01192-0]

Series of articles "Heart of a Fighter"

From Engine magazine
<http://engine.aviaport.ru/main.html>