

# Arado 234B-2

A/C Type: Light jet bomber  
 Engine(s): Two Junkers Jumo 004B turbojet  
 Eng. Pwr: 1146-3968 lbs of turbo-jet thrust  
 A/C Crew: Pilot

Maximum Speed: 461 mph @ 20,000 ft  
 Maximum Ceiling: 32,860 ft / 30,000 ft / 27,500 ft  
 Defense factor: 5 Size Modifier: 0  
 Damage Factor: 109/15 Endurance: 90  
 Cockpit View: Good Blind Area: Rear

Protection: Cockpit +1 Engines -1 Fuel +1

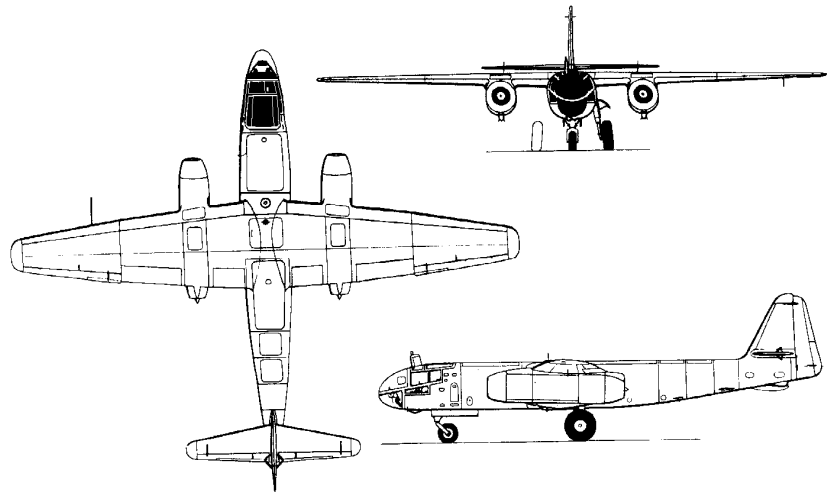
Climb Dece/ Dive Accel: 2.0 / 1.0

Weight and Load Limit: 3300 / 5-9

Wpn Stations	Weight	Allowed Loads
1,3	550	66-gal FT or bomb
2	2200	1 bomb

Country: Germany

Service Entry Date: January 45



Class: L

Victory Points: 7-14

## AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(5)	Min HT(6)	Min BT(7)	Min ET(8)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	--	--	--	--	--	--	--	37-42	EH	--
31-36	VH	4.0	9.0	11.0	6.5	8.5	10.0	--	31-36	VH	500
25-30	HI	4.0	9.0	11.0	6.0	8.0	9.5	11.0	25-30	HI	1200
19-24	MH	3.5	9.0	11.0	5.5	7.5	9.0	10.5	19-24	MH	2000
13-18	ML	3.5	9.0	11.0	5.0	6.5	8.0	9.5	13-18	ML	2600
7-12	LO	3.0	8.5	10.5	4.5	6.0	7.5	9.0	7-12	LO	3000
1-6	VL	3.0	8.5	10.5	4.0	5.5	7.0	8.5	1-6	VL	3400

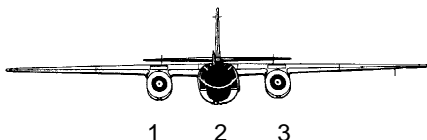
## FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
R1	1x 20mm MG151 cannon	10	2
R2	1x 20mm MG151 cannon	10	2

## GUN ATTACK FACTORS

Range	R1	R2	Total
0	26	26	52
1	20	20	40
2	13	13	26
3	9	9	18
4	6	6	12
5	4	4	8
6	3	3	6
7	--	--	--

## WEAPON STATION LOCATION



## POWER VERSUS SPEED CHART

(per engine)

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	--	--	--	--	EH
31-36	VH	2.0	1.0	0.5	--	VH
25-30	HI	2.5	1.5	0.5	--	HI
19-24	MH	3.0	2.0	1.0	--	MH
13-18	ML	3.0	2.0	1.0	--	ML
7-12	LO	3.0	2.0	1.0	--	LO
1-6	VL	3.0	2.0	1.0	--	VL
Banking FPs		3	4	5	7	
Side Slip FPs		4	5	6	8	

## NOTES AND VARIANTS

**Ar234B:** World's first jet bomber. A fine aircraft, but not numerous enough to affect the outcome of the war. If fired at from front arc, cockpit protection = 0. Difficult to leave cockpit: +2 to bailout attempts.

**Fuel Use:** Each op-scale turn that begins and ends at MH+ costs 6 minutes end. Each op-scale turn that begins and ends at VL costs 15 minutes end.

**Ar 234B-1:** Available October, 1944. Unarmed recon version.

**Ar 234B-2:** Available January, 1945. Flew in the west, most notably attacking the Remagen Bridge. Could view rear through periscope; can sight rear targets on 3-. A few (1 on a D10) were armed with two rear-facing fixed MG151 20mm cannon; +2 to shots aimed through periscope. 215 built.

**66-gal FT:** Wgt: 550 lbs Load: 3/2 End: +20 min each

# Arado 234C-3

A/C Type: Light jet fighter-bomber  
 Engine(s): Four BMW Jumo 003A turbojet  
 Eng. Pwr: 7055 lbs of turbo-jet thrust  
 A/C Crew: Pilot

Maximum Speed: 540 mph @ 19,685 ft  
 Maximum Ceiling: 39,370 ft / 33,000 ft / 28,500 ft  
 Defense factor: 5 Size Modifier: 0  
 Damage Factor: 10/15 Endurance: 55  
 Cockpit View: Good Blind Area: Rear

Protection: Cockpit +1 Engines -1 Fuel +1

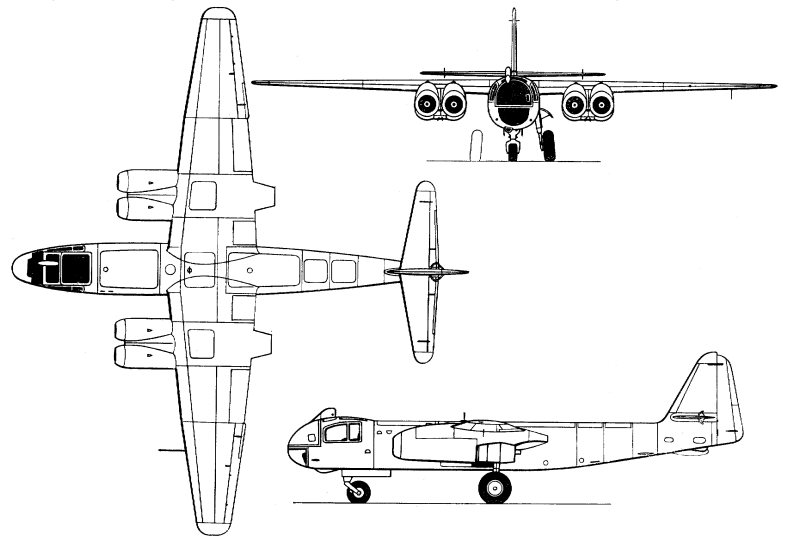
Climb Dece/ Dive Accel: 2.0 / 1.0

Weight and Load Limit: 3307 / 6-10

Wpn Stations	Weight	Allowed Loads
1,3	550	66-gal FT or bomb
2	2200	1 bomb

Country: Germany

Service Entry Date: March 45



Class: L

Victory Points: 7-14

## AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(5)	Min HT(6)	Min BT(8)	Min ET(9)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	4.5	10.0	11.0	7.0	9.0	10.5	--	37-42	EH	600
31-36	VH	4.0	10.5	11.0	6.5	8.5	10.0	--	31-36	VH	1,200
25-30	HI	4.0	10.5	11.0	6.0	8.0	9.5	11.0	25-30	HI	1,800
19-24	MH	3.5	10.5	11.0	5.5	7.5	9.0	10.5	19-24	MH	2,400
13-18	ML	3.5	10.5	11.0	5.0	6.5	8.0	9.5	13-18	ML	2,900
7-12	LO	3.0	10.0	10.5	4.5	6.0	7.5	9.0	7-12	LO	3,400
1-6	VL	3.0	10.0	10.5	4.0	5.5	7.0	8.5	1-6	VL	3,700

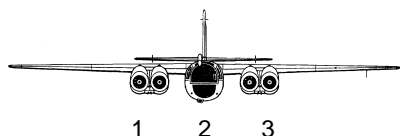
## FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	1x 20mm MG151 cannon	12	2
N2	1x 20mm MG151 cannon	12	2
R1	1x 20mm MG151 cannon	12	2
R2	1x 20mm MG151 cannon	12	2

## GUN ATTACK FACTORS

Range	N1	N2	R1	R2	Total
0	26	26	26	26	52
1	20	20	20	20	40
2	13	13	13	13	26
3	9	9	9	9	18
4	6	6	6	6	12
5	4	4	4	4	8
6	3	3	3	3	6
7	--	--	--	--	--

## WEAPON STATION LOCATION



## POWER VERSUS SPEED CHART

(per engine)

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	1.5	1.0	0.5	0.25	EH
31-36	VH	1.5	1.0	0.5	0.25	VH
25-30	HI	1.75	1.25	0.75	0.25	HI
19-24	MH	2.0	1.5	1.0	0.5	MH
13-18	ML	2.0	1.5	1.0	0.5	ML
7-12	LO	2.0	1.5	1.0	0.5	LO
1-6	VL	2.0	1.5	1.0	0.5	VL
Banking FPs		3	4	5	7	
Side Slip FPs		4	5	6	8	

## NOTES AND VARIANTS

**Ar234C:** Version of the world's first jet bomber equipped with 4 BMW 003A engines to free up Jumo 004s for use by Me262. Improved overall thrust. A fine aircraft, but not numerous enough to affect the outcome of the war. If fired at from front arc, cockpit protection = 0. Difficult to leave cockpit: +2 to bailout attempts. +2 to rear shots aimed through periscope. None served with active units in the field.

**Fuel Use:** Each op-scale turn that begins and ends at MH+ costs 6 minutes end. Each op-scale turn that begins and ends at VL costs 15 minutes end.

**Ar234C-1:** Available March, 1945. Recon version - R1, R2 only. 10 built.

**Ar 234C-3:** Available March, 1945. Multipurpose aircraft Equipped as B-2 light bomber plus cannon. Plans included nightfighter, but not built. 5 built.

**66-gal FT:** Wgt: 550 lbs Load: 3/2 End: +15 min each

# Horten Ho 229A

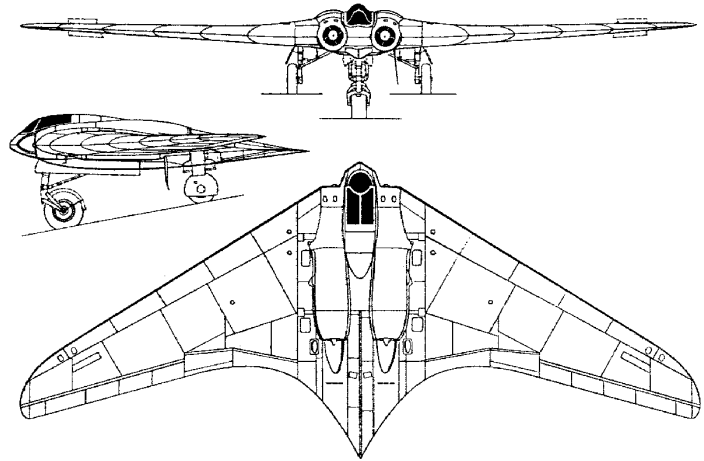
A/C Type: Jet Flying Wing Fighter  
 Engine(s): 2x Junkers Jumo 004B turbojet  
 Eng. Pwr: 2x981 kg thrust  
 A/C Crew: Pilot

Maximum Speed: 607 mph at 39,700  
 Maximum Ceiling: 52,500  
 Defense factor: 5 Size Modifier: +0  
 Damage Factor: 7/11 Endurance: 130  
 Cockpit View: Good Blind Area: Rear  
 Protection: Cockpit +2 Fuel +1 Engine +2

Climb Dece/ Dive Accel: 3.0 / 1.0  
 Weight and Load Limit: 4400 lbs / 5-8  
 Wpn Stations Weight Allowed Loads  
 1, 2 2200 FT or 1 bomb

Country: Germany

Service Entry Date: late May, 1945



Class: F-Jet

Victory Points: 10-19

## AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(3)	Min HT(4)	Min BT(5)	Min ET(6)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	3.5	10.5	11.5	6.0	7.5	8.5	10.0	43+	UH	900
37-42	EH	3.0	11.0	12.0	5.5	7.0	8.0	9.0	37-42	EH	1,700
31-36	VH	3.0	12.0	12.0	5.0	6.5	7.5	8.5	31-36	VH	2,400
25-30	HI	2.5	12.0	12.5	4.5	6.0	7.0	8.0	25-30	HI	3,000
19-24	MH	2.5	12.0	12.5	4.0	5.5	6.5	7.5	19-24	MH	3,600
13-18	ML	2.5	12.0	12.5	4.0	5.0	6.0	7.0	13-18	ML	4,100
7-12	LO	2.0	11.0	12.5	3.5	4.5	5.5	6.5	7-12	LO	4,500
1-6	VL	2.0	10.5	12.5	3.0	4.0	5.0	6.0	1-6	VL	4,300

## FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	2x 30mm Mk 108 cannon	10	1
N2	2x 30mm Mk 108 cannon	10	1

## GUN ATTACK FACTORS

Range	N1	N2	Total
0	38	38	76
1	30	30	60
2	22	22	44
3	14	14	28
4	8	8	16
5	6	6	12
6	--	--	--
7	--	--	--

## WEAPON STATION LOCATION



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## POWER VERSUS SPEED CHART

Levels	Bands	(per engine)				Band
		1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	
43+	UH	2.5	1.5	0.5	0.5	UH
37-42	EH	2.5	1.5	0.5	0.5	EH
31-36	VH	2.5	1.5	0.5	0.5	VH
25-30	HI	3.0	2.0	1.0	0.5	HI
19-24	MH	3.0	2.0	1.0	0.5	MH
13-18	ML	3.0	2.0	1.0	0.5	ML
7-12	LO	3.0	2.0	1.0	0.5	LO
1-6	VL	3.0	2.0	1.0	0.5	VL
Banking FPs		4	5	7	9	
Side Slip FPs		5	6	8	10	

## NOTES AND VARIANTS

**Horten Ho 229:** "Available" May 1945. The first pre-production model was captured without wings by US troops in late April, 1945. The Horten was to be built as fighter and fighter bomber. Like the Me-163, it had swept wings and could withstand transonic speeds. It had almost no drag - and no vertical control surfaces. No skids allowed. Bad longitudinal stability: +1 to gunnery rolls. Ejection seat. Flaps.

**Laminated Plywood Construction:** +1 for op-scale GCI spotting. Large shells tended to punch through w/o exploding: 20mm or larger weapons do .75 dmg per hit, round up.

**Fuel Use:** Each op-scale turn that begins and ends at MH+ costs 6 minutes end. Each op-scale turn that begins and ends at VL costs 15 minutes end.

Flying wings and jets were very new, very tricky items to fly; the combination was extremely difficult: +2 to Spin Recovery rolls; +2 landing attrition roll.

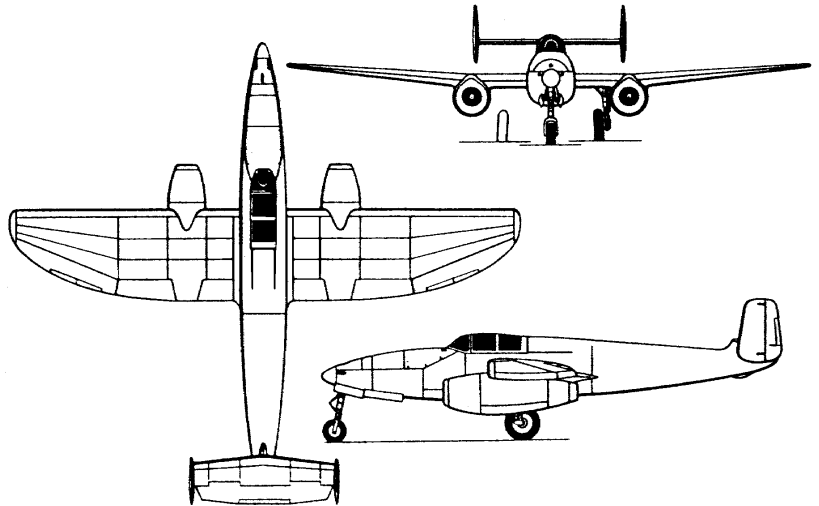
# Heinkel He 280

A/C Type: Jet Fighter  
 Engine(s): 2x BMW 109-004 Turbojets  
 Eng. Pwr: 2x 661-lb thrust  
 A/C Crew: Pilot

Maximum Speed: 508 mph @ 19,645 ft  
 Maximum Ceiling: 37,390 ft  
 Defense factor: 5 Size Modifier: +2  
 Damage Factor: 9/13 Endurance: 50  
 Cockpit View: Fair Blind Area: Rear  
 Protection: Cockpit +0 Engines +0 Fuel +0  
 Climb Dece/ Dive Accel: 3.0 / 1.0  
 Weight and Load Limit: None  
 Wpn Stations Weight Allowed Loads

Country: Germany

Service Entry Date: October 1943



Class: F-Jet

Victory Points: 7-13

## AIRCRAFT PERFORMANCE CHART

Altitude Levels	Bands	Minimum Speed	Maximum Speed	Maximum Dive Spd	Min TT(4)	Min HT(5)	Min BT(6)	Min ET(7)	Altitude Levels	Bands	Average Rate of Climb
43+	UH	--	--	--	--	--	--	--	43+	UH	--
37-42	EH	4.0	9.5	10.5	6.0	8.0	10.0	--	37-42	EH	3,300
31-36	VH	3.5	9.5	11.5	5.5	7.5	9.5	11.5	31-36	VH	3,800
25-30	HI	3.5	9.5	11.5	5.0	7.0	8.5	10.0	25-30	HI	4,200
19-24	MH	3.0	10.0	11.5	4.5	6.0	7.5	9.0	19-24	MH	4,500
13-18	ML	3.0	10.0	11.5	4.0	4.5	6.5	8.0	13-18	ML	4,500
7-12	LO	3.0	9.5	11.0	3.5	5.0	6.0	7.0	7-12	LO	4,300
1-6	VL	2.5	9.0	10.0	3.5	4.5	5.5	6.5	1-6	VL	4,100

## FIRE POWER CHART

Guns	Type Weapons	Ammo	Criticals
N1	1x 20mm MG151 cannon	7	2
N2	1x 20mm MG151 cannon	7	2
N3	1x 20mm MG151 cannon	7	2

## GUN ATTACK FACTORS

Range	N1	N2	N3	Total
0	23	23	23	69
1	16	16	16	48
2	12	12	12	36
3	8	8	8	24
4	6	6	6	18
5	4	4	4	12
6	3	3	3	9
7	--	--	--	--

WEAPON STATION LOCATION

## POWER VERSUS SPEED CHART

(per engine)

Levels	Bands	1.0 - 4.5	5.0 - 7.5	8.0 - 9.5	10.0+	Band
43+	UH	--	--	--	--	UH
37-42	EH	2.0	1.0	0.5	--	EH
31-36	VH	2.0	1.0	0.5	--	VH
25-30	HI	2.0	1.0	0.5	--	HI
19-24	MH	2.5	1.5	0.5	0.5	MH
13-18	ML	2.5	1.5	0.5	0.5	ML
7-12	LO	2.5	1.5	0.5	--	LO
1-6	VL	2.5	1.5	0.5	--	VL
Banking FPs		2	3	5	7	
Side Slip FPs		3	5	7	9	

## NOTES AND VARIANTS

**Heinkel He 280:** Developed in parallel with the Me 262, the He 280 was ahead of the Me262, but was delayed by the lack of an engine. Then Heinkel lost an influence war within the RLM to Messerschmitt and rare parts and material became difficult to acquire. Early tests showed the He280 as the better handling aircraft. As the Me262 neared completion and looked good, the He280 was shelved. It is presented here as a 'what if.'