

Nakajima Ki-34

Le Ki-34 Nakajima est un avion de transport léger japonais de la Seconde Guerre mondiale. Appareil monoplane, bimoteur à aile basse, train d'atterrissage et roulette de queue escamotable, connu chez les alliés sous le nom de "Thora". Le Ki-34 a été initialement conçu comme un avion de transport civil. En 1935, la société Nakajima Aircraft, obtient les droits de fabrication sous licence du Douglas DC-2, désigné AT-1. Le second prototype, équipé de deux moteurs Nakajima Kotobuki-41 radiaux, à neuf cylindres de 710 Chevaux refroidis par air, entraînant des hélices bipales métalliques à pas variable voit le jour en 1936, sous la désignation AT-2. En 1937, au début de la guerre sino-japonaise, la demande en transport de troupe s'accroît. L'armée impériale adapte donc l'AT-2 au transport de troupe en le désignant du nom de Ki-34 ou Type 97. En service opérationnel, le Ki-34 est utilisé comme avion de liaison, de communication et sert à la formation des parachutistes ou pour des opérations des forces spéciales. Le ki-34, dans sa version militaire, fut construit à 318 exemplaires. Les 19 premiers appareils furent produits par Nakajima et les 299 aéronefs restant par Tachikawa, dont certains furent versés à la marine impériale japonaise sous le nom de Nakajima L1N1.

Nakajima Ki-34 :

- 2 moteurs Nakajima Kotobuki-41
- 2 X 710 Ch
- 360 Km/h
- 8 passagers
- 5300 Kg en charge
- 7000 m de plafond pratique
- 1200 km en distance franchissable
- 3 Equipiers



Version anglaise

The **Nakajima Ki-34** was a Japanese light transport of [World War II](#). It was a twin-engine, low-wing [monoplane](#); the [undercarriage](#) was of [tailwheel](#) type with retractable main units. During the [Pacific War](#), the [Allies](#) assigned the type the [reporting name](#) **Thora**.

Design and development

The Ki-34 was originally designed as a civil transport. Nakajima Aircraft Company, which had the license-production rights to the [Douglas DC-2](#), began design work in 1935 on a smaller twin engine [airliner](#) for routes which did not have the capacity to justify use of the larger DC-2. The initial design was designated **AT-1**, and after numerous design iterations, flew as a [prototype](#) designated **AT-2** on 12 September 1936.^[1] The design was all metal, except for the [flight control surfaces](#), which were [plywood](#). The wings used a multi-cell [cantilever](#) design. The prototype was fitted with 432 kW (580 hp) [Nakajima Kotobuki 2-1 radial engines](#) with fixed pitch wooden [propellers](#), which were replaced in production models with Kotobuki-41 529 kW (710 hp) nine-cylinder [radial engines](#), with [variable pitch](#) metal propellers.

Operational history

Civil use (AT-2)

A total of 32 AT-2s were produced for [Imperial Japanese Airways](#) (*Dai Nippon Koku KK*) and [Manchukuo National Airways](#),^[2] operating on scheduled routes between [Tokyo](#) and [Hsinking](#), Tokyo and [Tianjin](#), and within [Manchukuo](#). These aircraft remained in operational service until the [surrender of Japan](#) in August 1945.

Military history (Ki-34 and L1N1)



Airborne Scene from "[Kato hayabusa sento-tai \(Colonel Kato's Falcon Squadron\)](#)".

With a high demand for increased [military transport](#) capability after the start of the [Second Sino-Japanese War](#) in 1937, the [Imperial Japanese Army](#) adapted the AT-2 design for military use by fitting with more powerful Nakajima Ha-1b radial engines and re-designating the aircraft as the **Army Type 97 Transport** and **Ki-34**. The initial 19 aircraft were produced by Nakajima Aircraft, and another 299 aircraft were subsequently produced by the Army-affiliated [Tachikawa Hikoki K.K.](#) The final [airframe](#) was delivered in 1942. In operational service, the Ki-34 was used as a [utility aircraft](#) for [liaison](#) and communications duties, and for [paratrooper](#) training and [Special Forces](#) operations. At a later date, some aircraft were transferred to the [Imperial Japanese Navy](#), where they were known as the **Navy Type AT-2 Transport** or **Nakajima L1N1**. Several were also transferred to the air force of the Japanese [puppet state](#) of China-Nanjing in 1942.

Specifications (Ki-34)

General characteristics

- **Crew:** 3
- **Capacity:** 8 pax
- **Length:** 15.3 m (50 ft 2 in)
- **Wingspan:** 19.916 m (65 ft 4 in)
- **Height:** 4.15 m (13 ft 7 in)
- **Wing area:** 49.2 m² (530 sq ft)
- **Empty weight:** 3,500 kg (7,716 lb)
- **Gross weight:** 5,250 kg (11,574 lb)
- **Powerplant:** 2 × [Nakajima Kotobuki 41](#) or [Nakajima Ha-1](#) 9-cylinder air-cooled radial piston engines, 530 kW (710 hp) each for take-off and 582 kW (780 hp) at 2,800 m (9,186 ft)
 - **Propellers:** 2-bladed variable-pitch propellers

Performance

- **Maximum speed:** 360 km/h (220 mph, 190 kn) at 3,360 m (11,020 ft)
- **Cruise speed:** 310 km/h (190 mph, 170 kn)
- **Range:** 1,200 km (750 mi, 650 nmi)
- **Service ceiling:** 7,000 m (23,000 ft)
- **Time to altitude:** 3,000 m (9,800 ft) in 6 minutes 38 seconds
- **Wing loading:** 106.7 kg/m² (21.9 lb/sq ft)
- **[Power/mass:](#)** 0.2017 kW/kg (0.1227 hp/lb)

