



**ANTONOV AIRLINES**  
**NO OTHER NAME CARRIES MORE WEIGHT**

# INDUSTRIES

## HUMANITARIAN & PEACEKEEPING



## INDUSTRIAL



## ENERGY



## OIL & GAS



## MARITIME



## AEROSPACE



## AUTOMOTIVE



## INTERMODAL



## TRAINS



## HELICOPTERS





## Antonov AN-124-100 / AN-124-100M-150 Ruslan

Antonov Airlines was the first operator to offer the AN-124-100 'Ruslan' to the commercial market. Thirty years on, as the owner and operator of seven AN-124-100s (including two modernised versions with an increased payload up to 150,000kg (330,693lbs), Antonov Airlines continues to set the standards.

The AN-124-100 can load shipments weighing up to 120,000kg (264,555lbs). However, two of Antonov Airlines' seven AN-124-100s have been modified to accept 150,000kg (330,693lbs). To handle this increased weight, a new digital anti-skid braking system has been installed, together with strengthened tyres. The forward loading ramp has also been reinforced to accept heavier payloads.



Designated AN-124-100M, Antonov Airlines' modernised versions boast upgraded navigation systems (P-RNAV) and fully comply with the latest ICAO avionics and noise regulations, meaning that they can operate globally and without restriction.

The AN-124 fuselage comprises a double-deck layout. The lower deck measures 36.5m (119ft 9in) in length, 6.4m (20ft 11in) in width and 4.4m (14ft 5in) in height. The upper deck consists of the cockpit in the forward section, and a technician/cargo attendant's compartment in the rear.

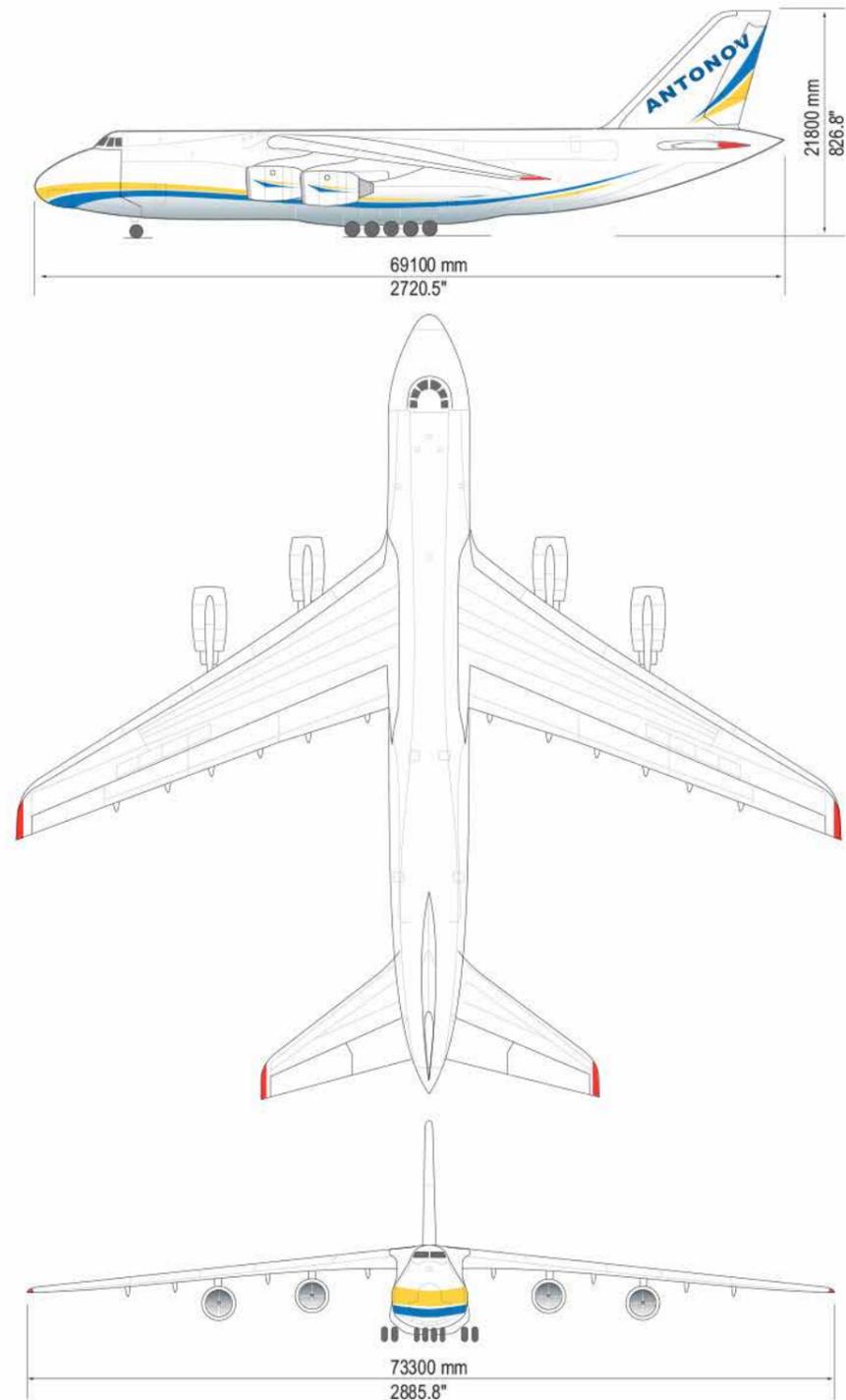
The aircraft contains hatches in the upper deck allowing access to the wing and tail unit to facilitate

maintenance when proper equipment is unavailable. There is also a well-equipped living area for the crew, which is useful on long-haul flights or when operating in remote areas.

The AN-124-100 is equipped with a system of overhead cranes, which can lift single pieces weighing up to 30,000kg (66,139lbs), meaning that minimal ground support is required. To load single pieces weighing up to 120,000kg (264,555lbs), the AN-124-100 uses its specially-designed landing gear to adjust its ground angle allowing the aircraft to 'kneel'. The AN-124-100 can then be loaded through the nose cargo door using its own extendable ramp. This method of loading can also be used to accept wheeled or tracked vehicles.

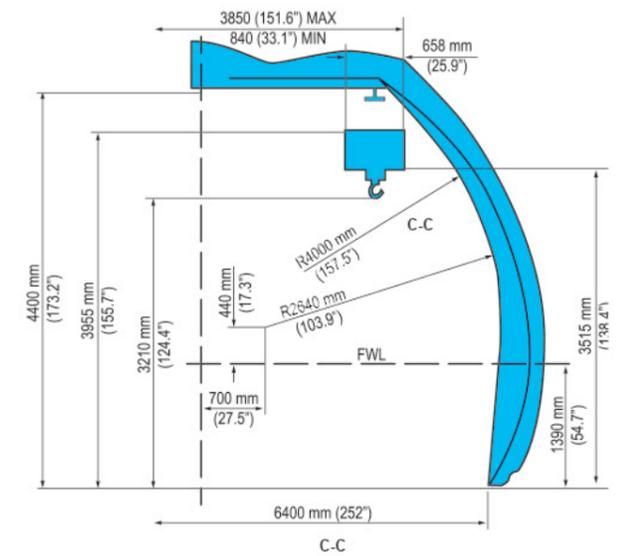
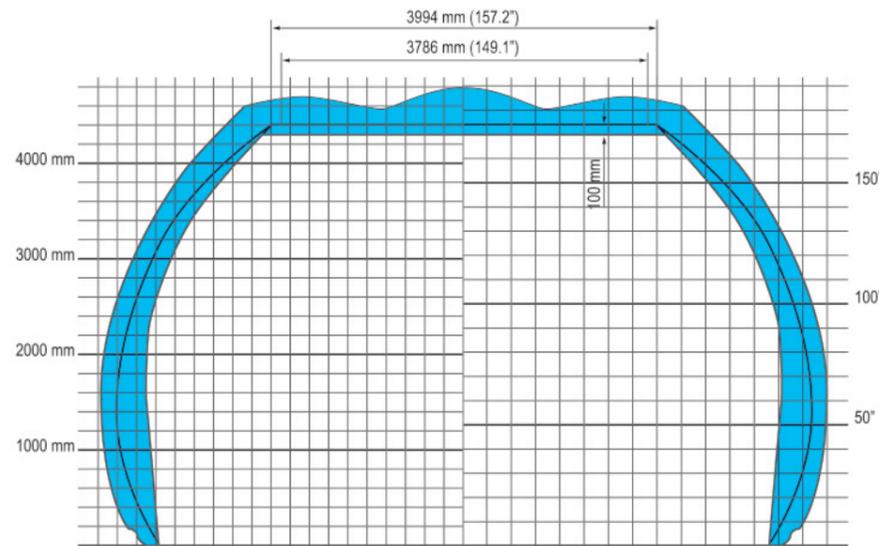
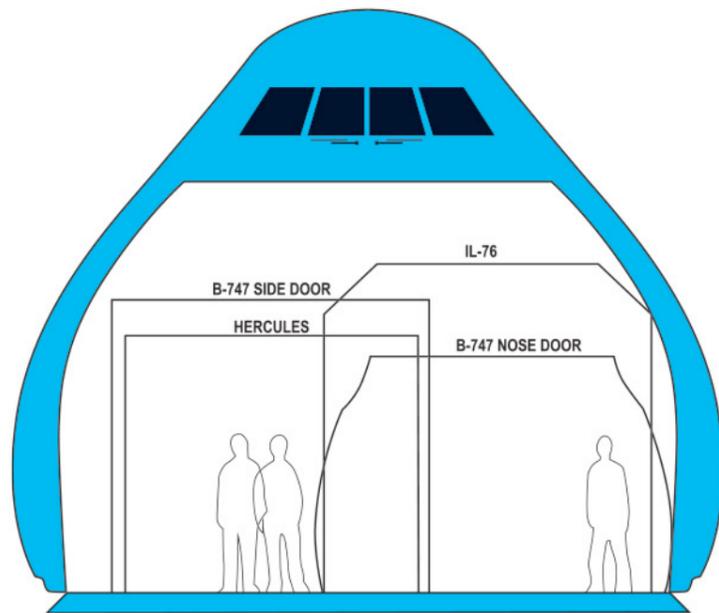
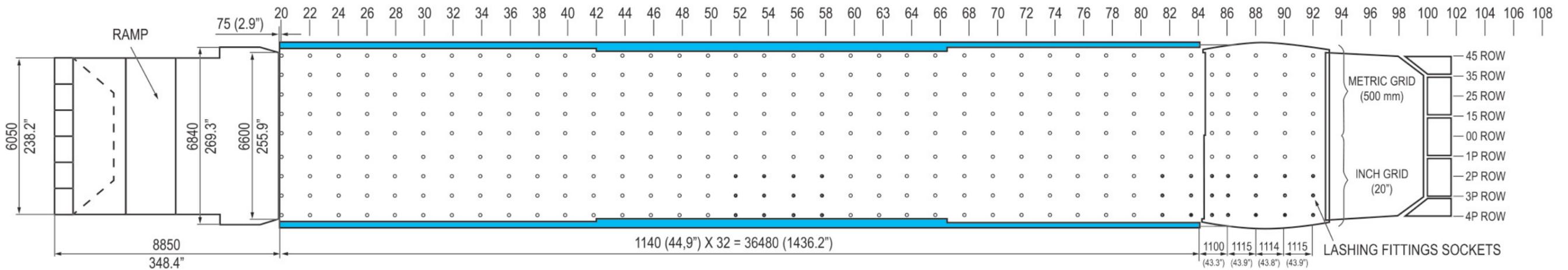
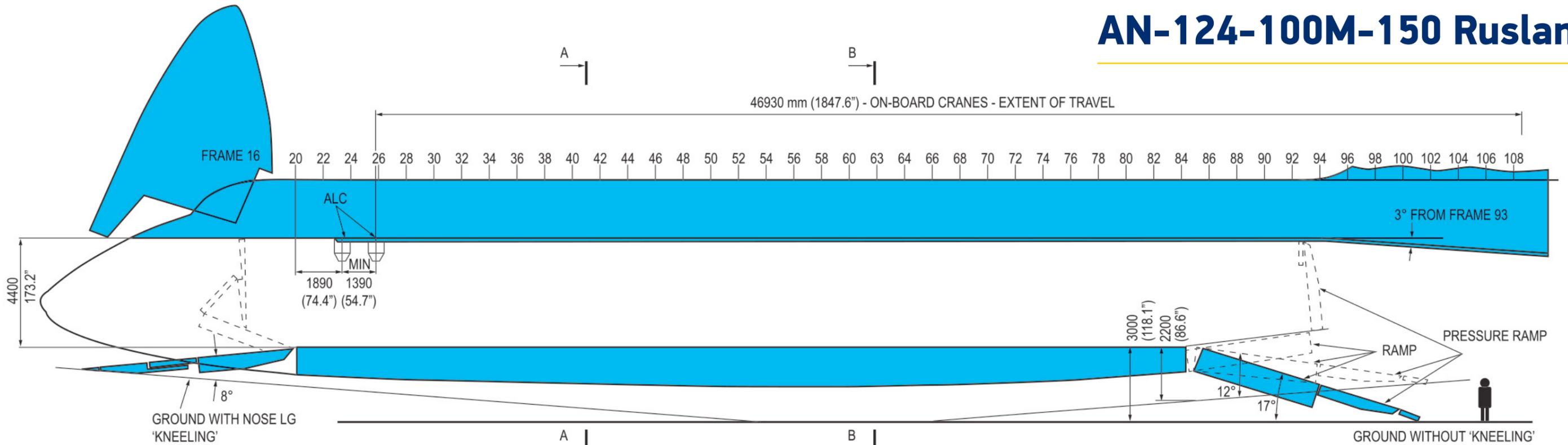
### Antonov AN-124-100M-150 vs AN-124-100 – the facts:

- **Payload increased up to 150,000kg (330,693lbs)** through reinforcement of fuselage structure, cargo floor and cargo ramp;
- **Weight of single-piece cargo increased to 120,000kg (264,555lbs)** following fuselage structure reinforcement and installation of nose door auxiliary supports;
- **Compliance with P-RNAV** conditions following upgrading of flight and navigation equipment;
- **Take-off weight and fuel weight increased** enhancing aircraft range;
- **Engine noise level reduced** following installation of sound-absorbing cowlings;
- **Flight range increased;**
- Reshaped nose **for better fuel efficiency.**



	AN-124-100	AN-124-100M-150
<b>Maximum Payload</b>	120,000kg (264,555lbs)	150,000 kg (330,693lbs)
<b>Maximum Volume</b>	1,040 CBM	1,040 CBM
<b>Cargo Cabin LWH</b>	36.5x6.4x4.4m (1437x251.9x173.2in)	36.5x6.4x4.4m (1437x251.9x173.2in)
<b>including Ramp</b>	43.7x6.4x4.4m (1877.9x251.9x173.2in)	43.7x6.4x4.4m (1877.9x251.9x173.2in)
<b>Cargo Door WH</b>	6.4x4.4m (251.9x173.2in)	6.4x4.4m (251.9x173.2in)
<b>On-Board Crane</b>	30,000kg lift (66,139lbs)	30,000kg lift (66,139lbs)

# AN-124-100M-150 Ruslan





## Antonov AN-225 Mriya

Antonov Airlines operates the unique AN-225 'Mriya' – the world's heaviest aircraft. Powered by six turbofan engines, this legendary aircraft has a maximum take-off weight of 640,000kg (1,410,958lbs).

The AN-225 was originally developed to transport the Energiya carrier-rocket and Buran space shuttle between space facilities in the former Soviet Union. It made its first flight on December 21, 1988.

The AN-225 entered commercial service in 2001. Since then, it has operated flights all over the world carrying cargoes such as electrical transformers and mobile power generators. It also continues to support worldwide peacekeeping and humanitarian operations.

The aircraft's service life has been extended, meaning that the AN-225 will remain in operation until at least 2033.

Based on Antonov's AN-124 design, the AN-225 saw fuselage barrel extensions added fore and aft of the wings. The An-225 also uses the AN-124-100's nose gear, which allows it to 'kneel' so that cargo can be easily loaded and unloaded. However,



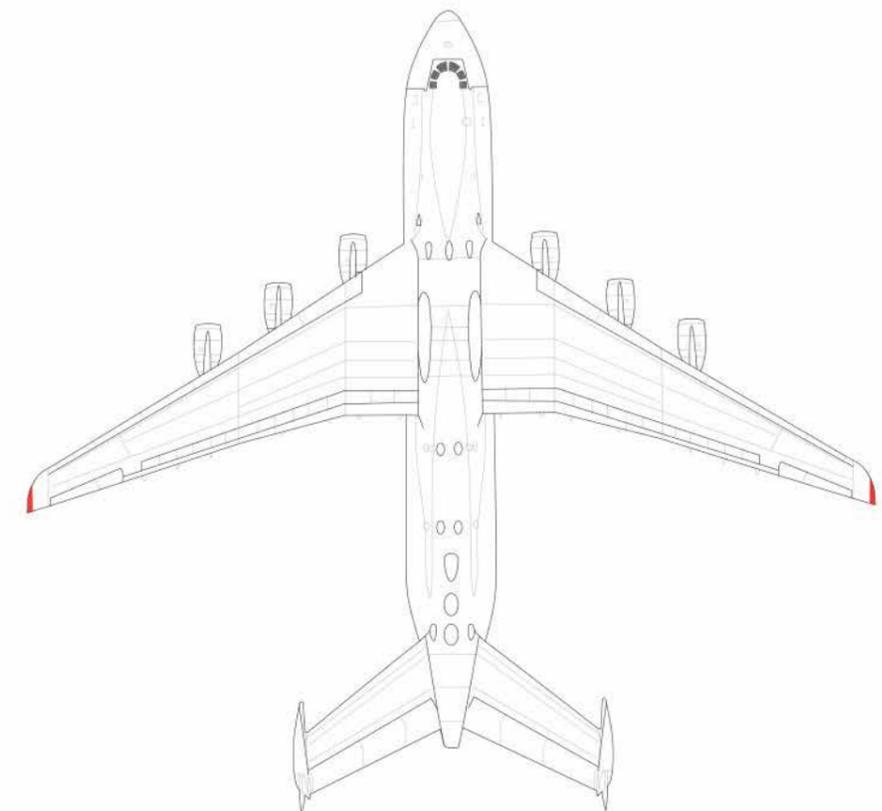
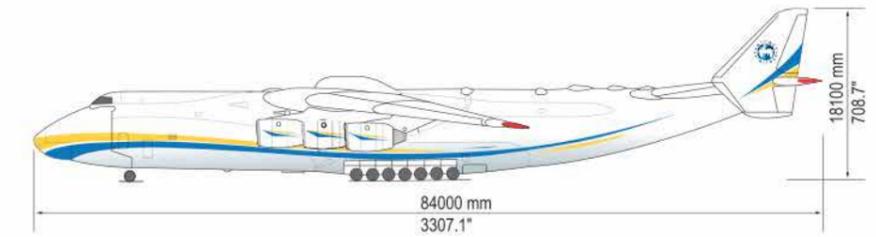
## 'Mriya' – no other name carries more weight around the globe.

unlike the AN-124-100, which has a rear cargo door and ramp, the AN-225's empennage design was changed from a single vertical stabilizer, to a twin tail with an oversized, swept-back horizontal stabilizer. This twin tail enabled the aircraft to carry large, heavy external loads, which would normally disturb the airflow around a conventional tail.

The AN-225's cargo compartment can be pressurized, extending the

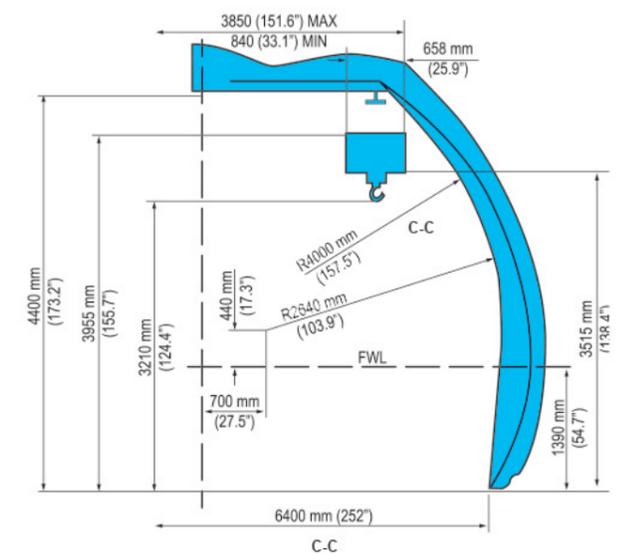
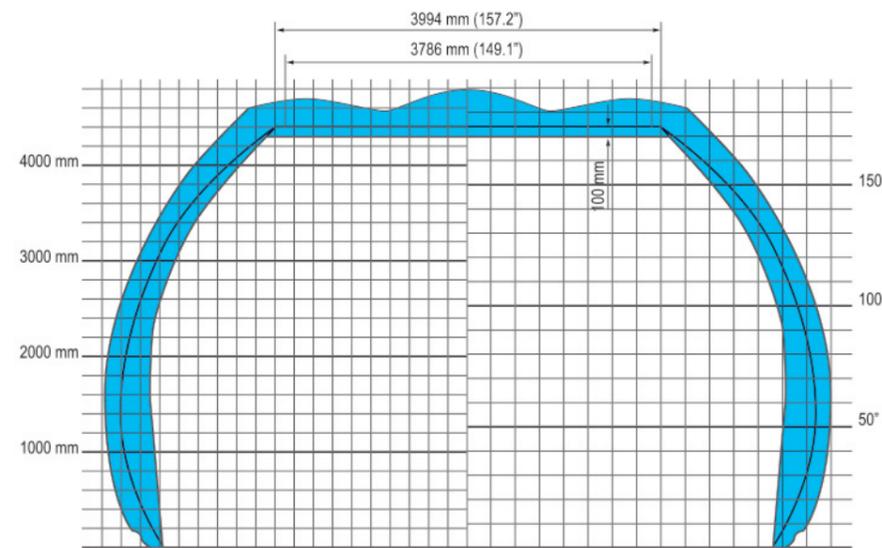
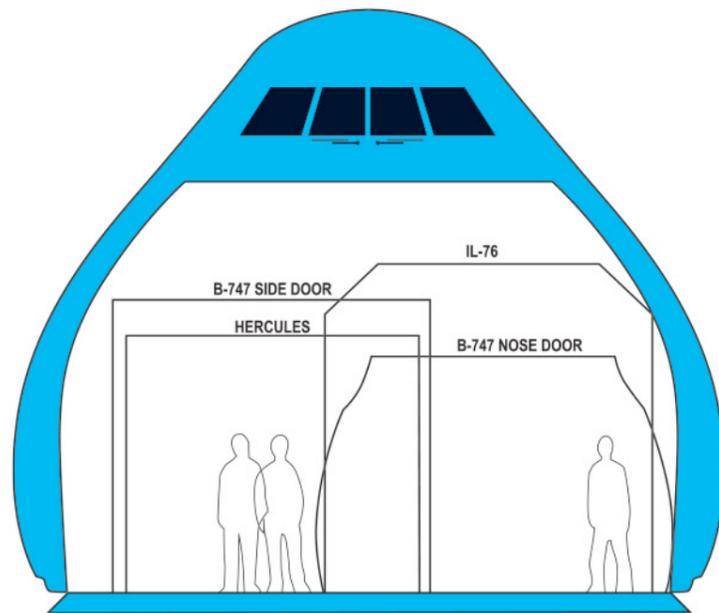
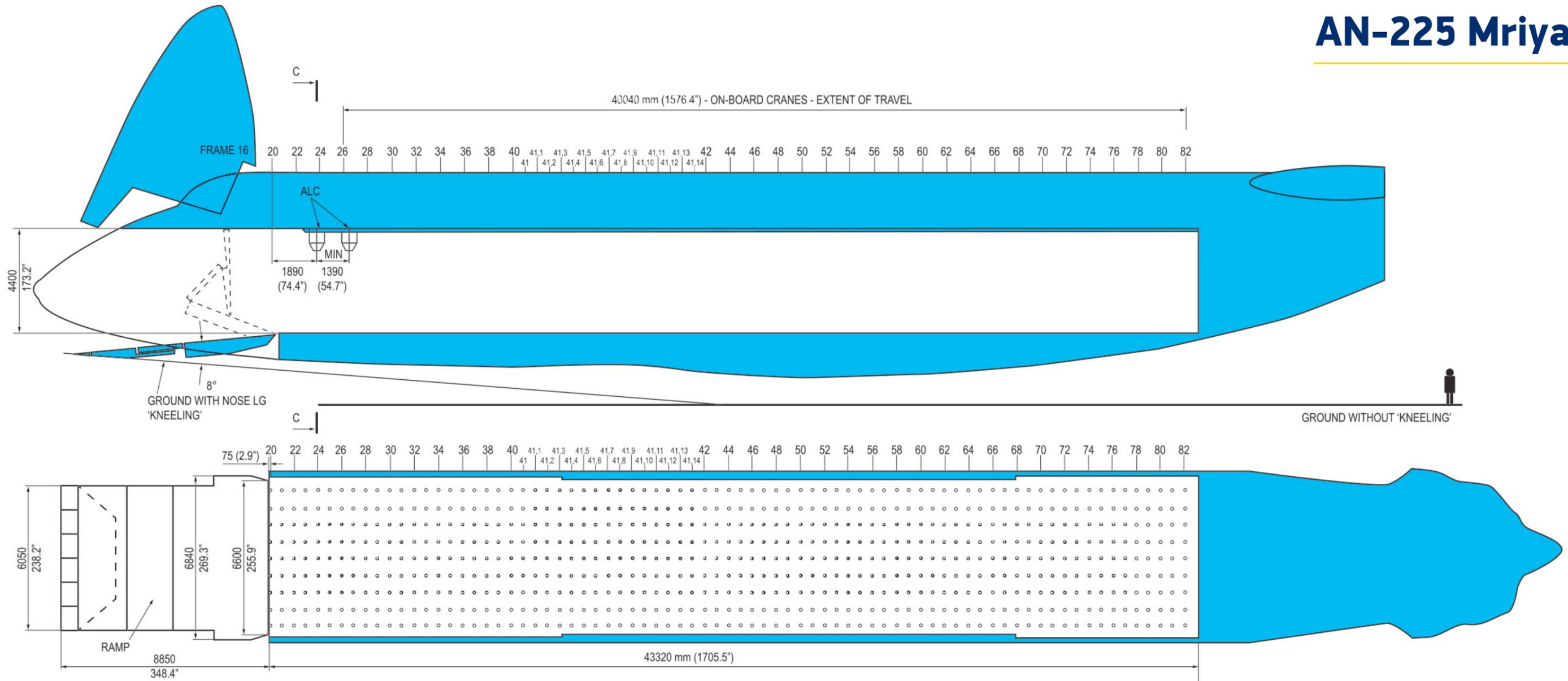
aircraft's transport capabilities. Its onboard cargo handling equipment, plus the design of the forward cargo door and its integral ramp, also ensure quick and easy loading/unloading operations.

The AN-225 is called 'Mriya', meaning 'Dream' in Ukrainian. It has 242 world records to its name and is the inspiration for Antonov Airlines' slogan: **"No other name carries more weight"**.



	AN-225 Mriya
<b>Maximum Payload</b>	250,000kg (551,155lbs)
<b>Maximum Volume</b>	1,200 CBM
<b>Cargo Cabin LWH</b>	43.3x6.4x4.4m (1704.7x251.9x173.2in)
<b>including Ramp</b>	45.4x6.4x4.4m (1787.4x251.9x173.2in)
<b>Cargo Door WH</b>	6.4x4.4m (251.9x173.2in)
<b>On-Board Crane</b>	30,000kg lift (66,139lbs)

# AN-225 Mriya





## Antonov AN-22 Antei

The AN-22A 'Antei' is unrivalled in almost every aspect. It represents one of the key engineering achievements in aviation history.

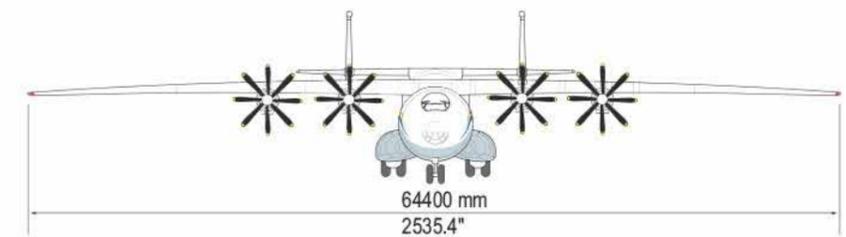
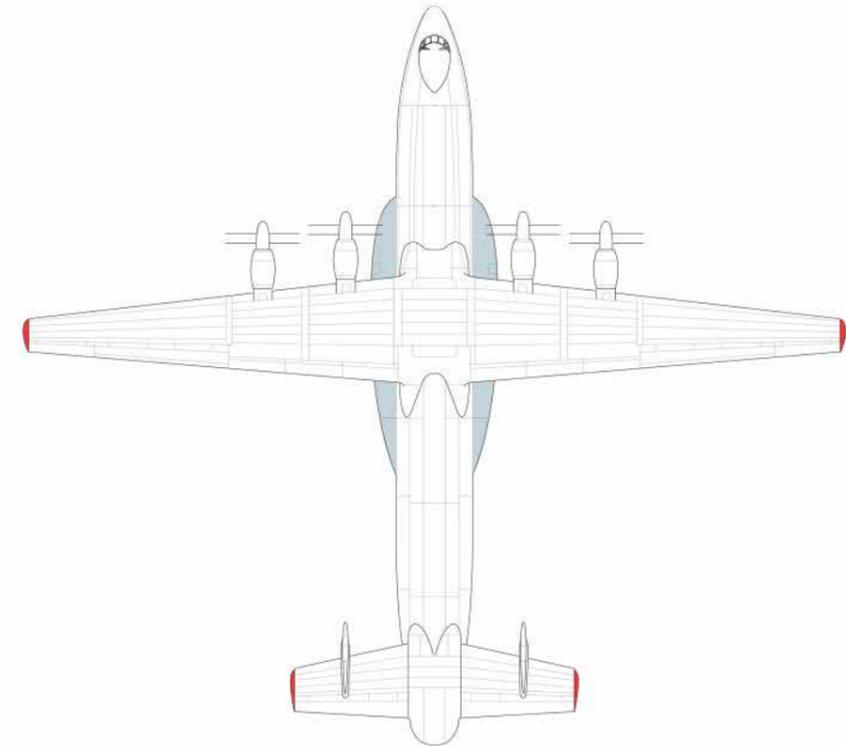
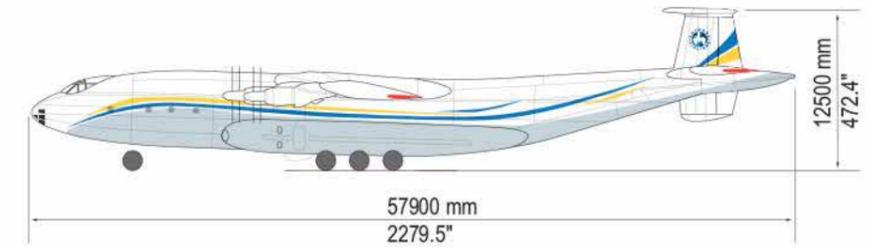
This huge four-engine turboprop is the world's largest propeller-driven aircraft, holding a series of world records that are likely to remain unsurpassed.

The first prototype AN-22 was rolled out in August 1964. After months of test flying it made its international public debut at the 1965 Paris Air Show at Le Bourget. During its first 50 years of flying, the AN-22 set a total of 41 speed, payload and payload-to-height world records.

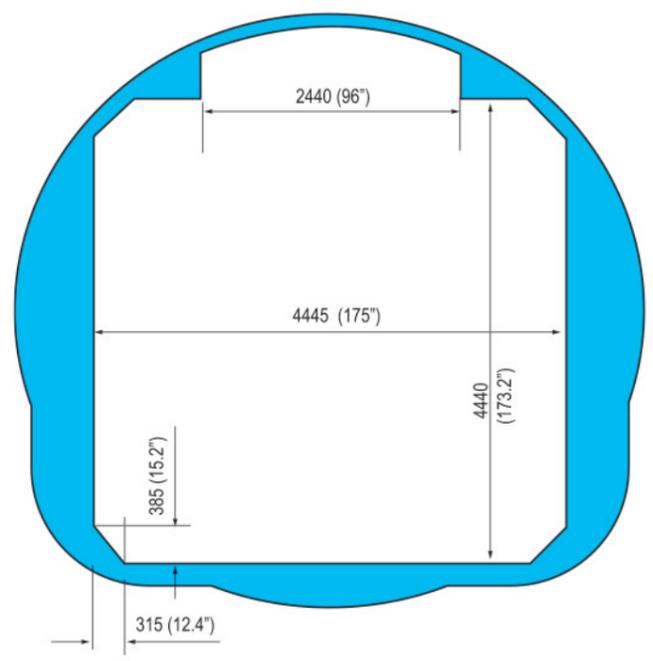
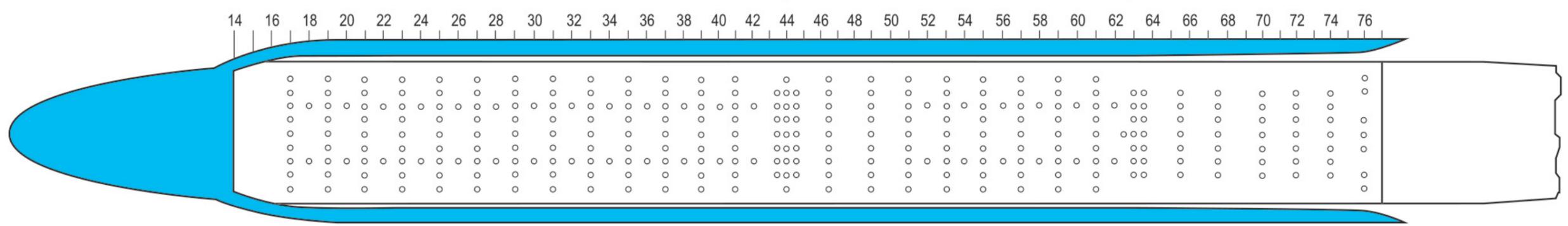
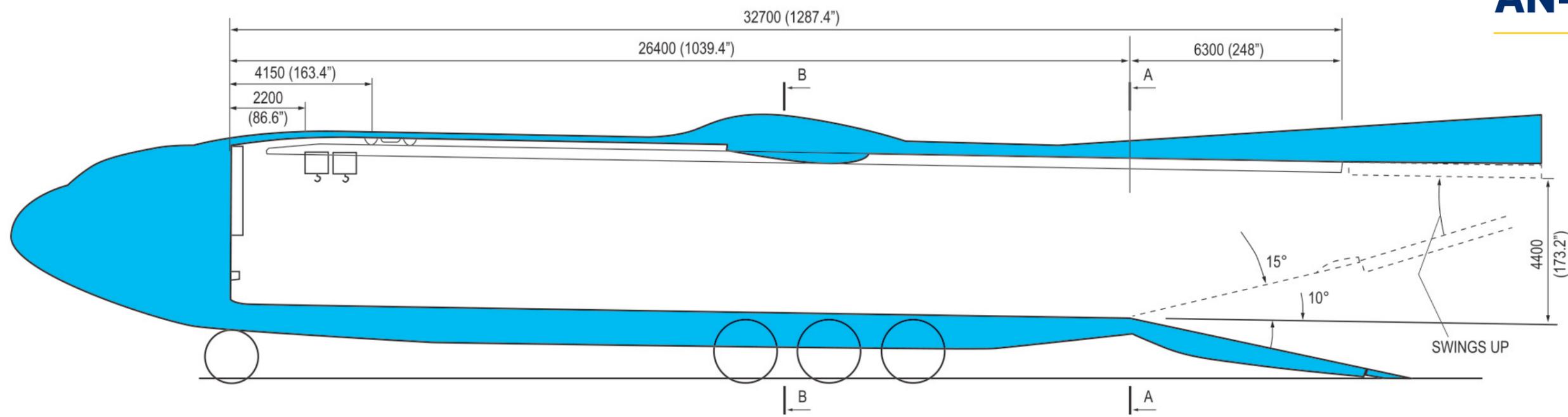
Originally built as a military aircraft, the AN-22's cabin height mirrors that of the AN-124 and AN-225 – 4.4m (14ft 5in). Similarly equipped with an on-board crane system, the AN22 is just as practical, yet more economical. Thanks to its unrivalled payload of 60,000kg (132,277lbs), the AN-22 is the only widebody freighter able to undertake the transportation of outside cargo to remote destinations. The aircraft has the capability to operate to relatively short, unpaved airstrips. Only two airframes have ever seen commercial use. Although the AN-22A currently operated by Antonov Airlines was first built in 1974, after two years and thousands of man-hours of extensive maintenance work, the aircraft

returned to service in September 2016. This later version of the AN-22 is almost totally self-sufficient, requiring little ground support equipment thanks to its four onboard cranes with a combined capacity of 10,000kg (22,046lbs).

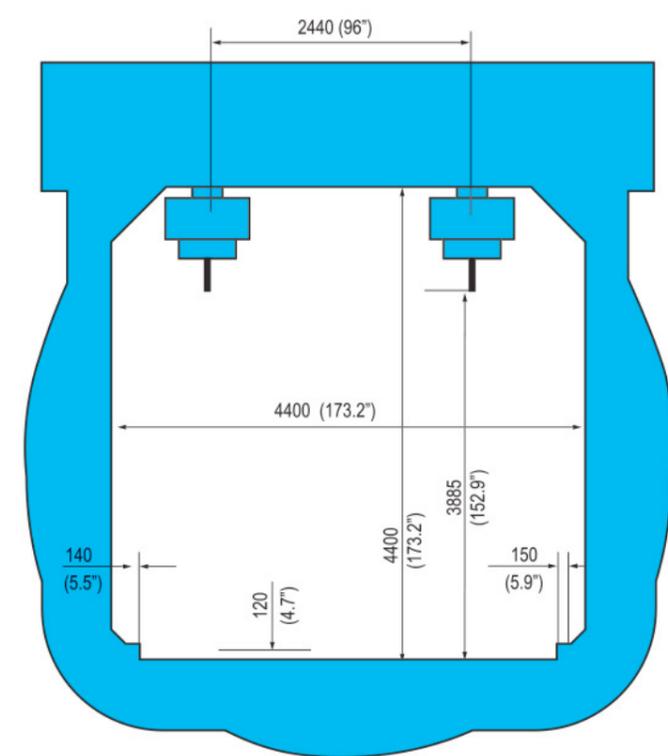
Having proved itself historically, the AN-22A is once again available for global transport duties. This aircraft provides a cost-effective alternative to cargo shipments that have traditionally been flown by jet aircraft such as the IL-76 and B747F. The unique AN-22A, however, remains the only method of air transportation for 60,000kg (132,277lbs) shipments to some of the world's remotest regions.



	AN-22 Antei
<b>Maximum Payload</b>	60,000kg (132,277lbs)
<b>Maximum Volume</b>	550 CBM
<b>Cargo Cabin LWH</b>	26.4x4.4x4.4m (1039.37x173.2x173.2in)
<b>including Ramp</b>	32.7x 6.4 x 4.4m (1287.4x173.2x173.2in)
<b>Cargo Door WH</b>	6.4x4.4m (251.9x173.2in)
<b>On-Board Crane</b>	10,000kg lift (22,046lbs)



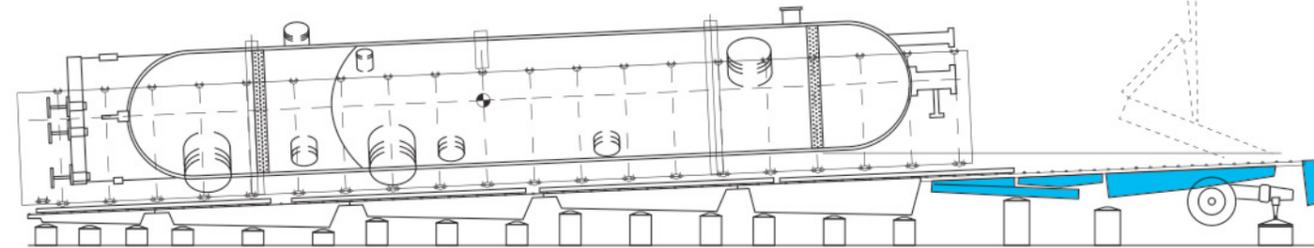
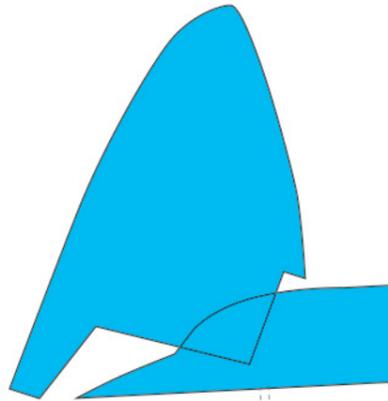
A-A



B-B



## Loading of oversized and super heavy cargoes with weight up to 200,000kg (440,000lbs) – using OPTG-120M loading equipment and external cranes



The **OPTG120** ramp system is the strongest and most rigid ramp system on the market. It has been designed and manufactured by Antonov Airlines to load heavy and oversized pieces.

- Advantages of the OPTG120 ramp system:**
- Lightweight and easily transportable;
  - Allows easy inspection during loading process;
  - Anchored to the floor after installation;
  - Track size is adjustable;
  - Lashing/anchoring points on both sides;
  - Winching points/joint points available;
  - In excess of 17m (55ft 9in) clearance of the external part. Suitable for any type of container. Can be extended if necessary;
  - Fully adjustable: can be used simultaneously with standard platforms (0.236m [9.3in] from the aircraft floor) and low platforms (0.141m [5.5in] from the aircraft floor).





## Loading of tall pieces with height up to 4.27m (168in) – using OPKG-50 loading equipment and external cranes.

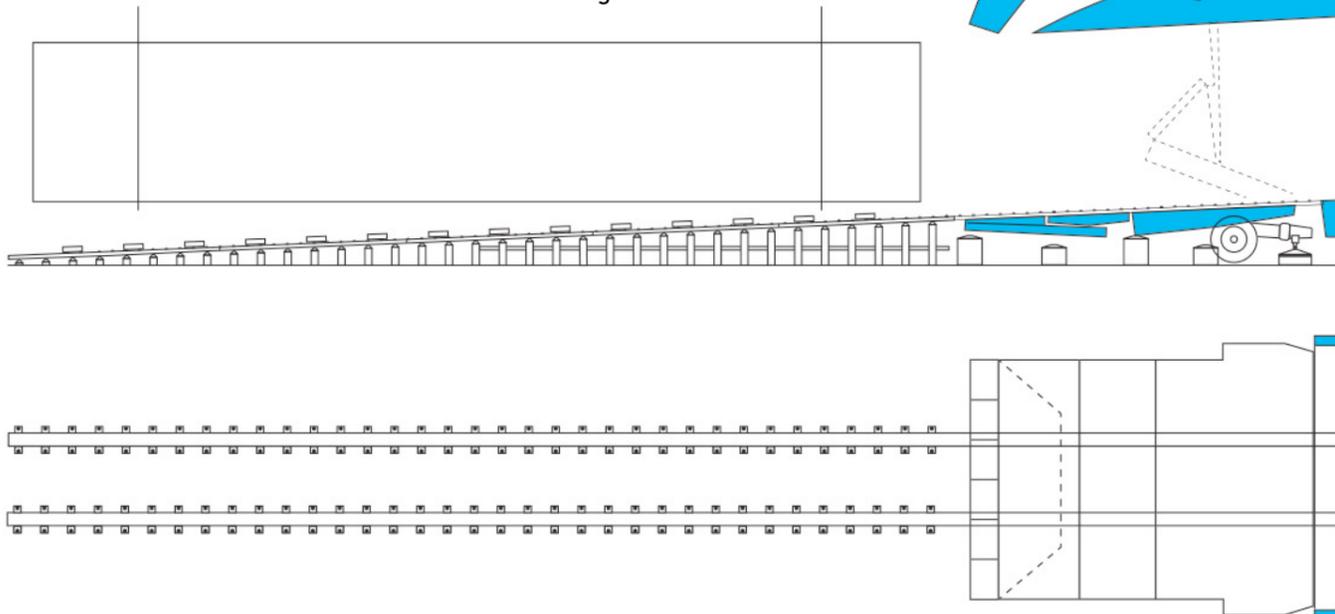
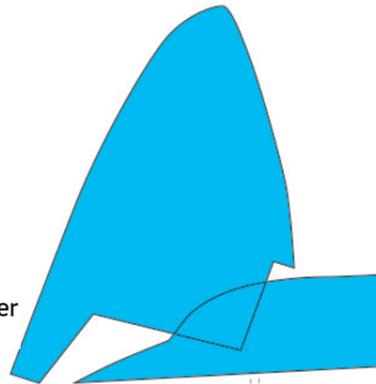
The **OPKG-50** ramp system is a unique, low profile skate-type loading equipment intended for loading and offloading oversized cargo weighed up to 50,000kg (110,231lbs) into the AN-124-100/150M and AN-225 aircraft. Although the system is similar to the OPTG-120M ramp system, it allows the loading of higher, but lighter pieces. However, the loading concept is the same as the OPTG-120M ramp system.

### OPKG-50 'Next Generation' Ramp System:

- Lowest profile on the market – 0.08m (3.15in);
- Wide track size – 5.502m (18ft 6in);
- Length – 25m (82ft);
- Brackets can be dismantled, allowing greater space between packed ramp and containers.

### Cargo parameters restricted to the following limits:

- single cargo weight – 50,000kg (110,231lbs);
- max height 4.27m (14ft 1in);
- weight per running meter up to 3600kg (7,937lbs);
- cargo footprint must be flat for proper weight distribution.



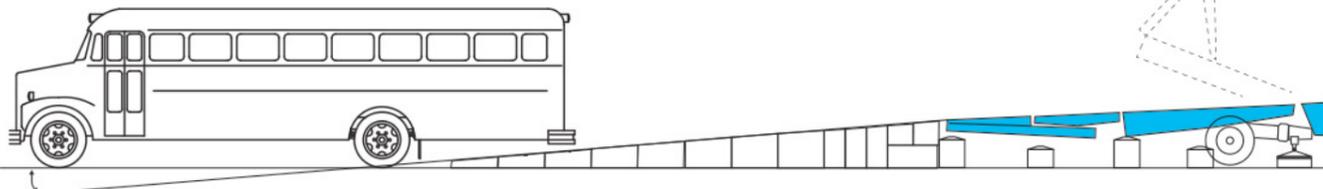
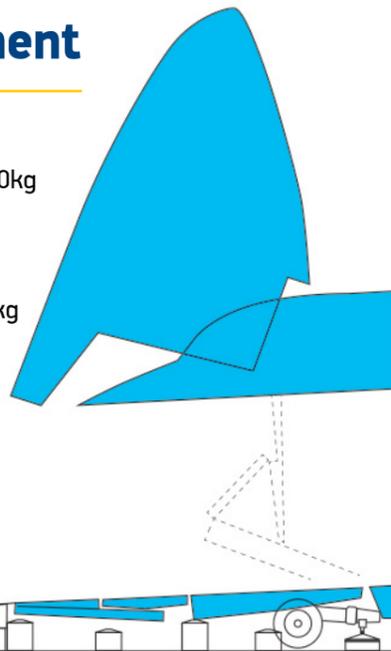


## Loading of vehicles with low ground clearance – using OZDKG loading equipment

The **OZDKG** ramp is a special piece of external equipment intended for loading and offloading long and heavy-wheeled vehicles into the AN-124-100/150M and AN-225 aircraft. Generally used when parameters like length, road clearance and the weight of vehicle will not allow loading via the aircraft's own integral ramp.

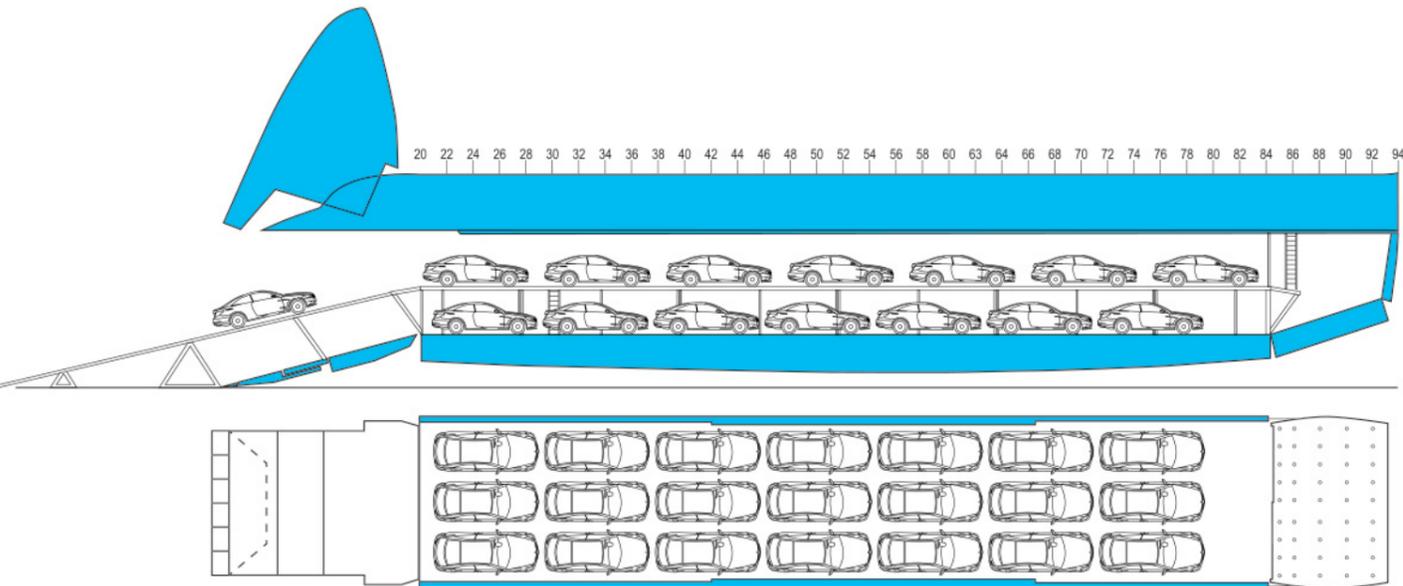
### Basic parameters:

- maximum weight of vehicle 120,000kg (264,558lbs);
- approach and departure angles to be no less than 5°;
- maximum axle load weight 15,000kg (33,069lbs).





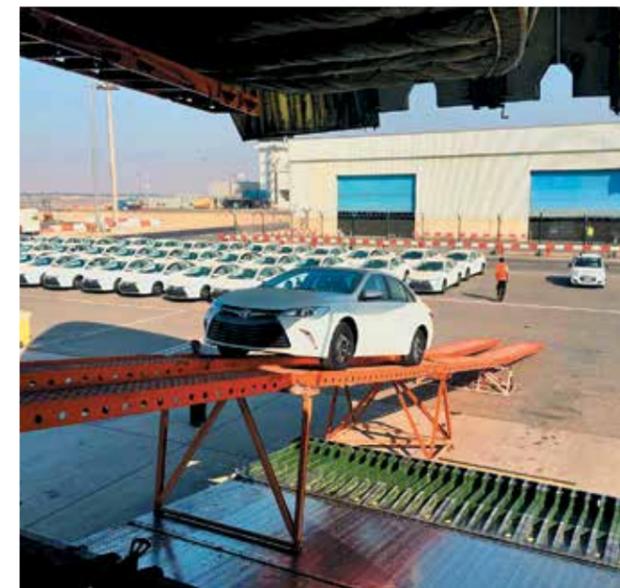
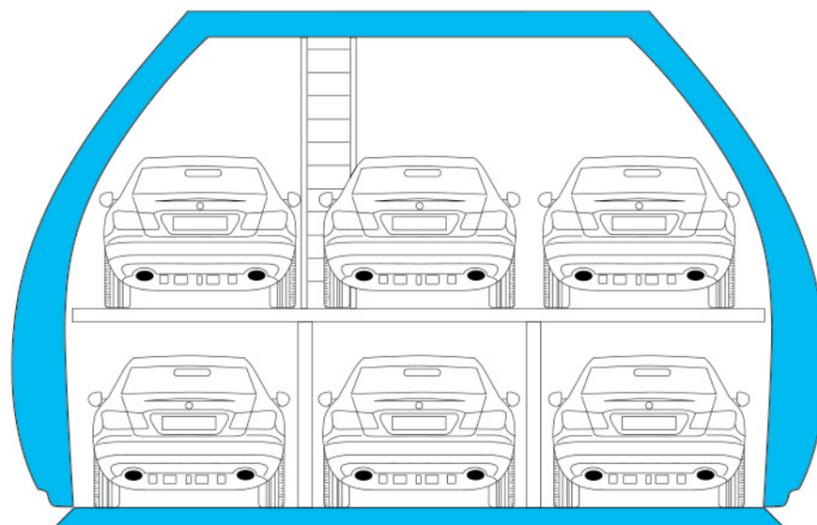
## Loading of cars – using car rack system



Antonov Airlines' **Car Rack System** is a special double-deck loading system allowing up to 50 cars to be loaded on two levels. Subject to vehicle dimension and weight, cars can simply be driven onboard.

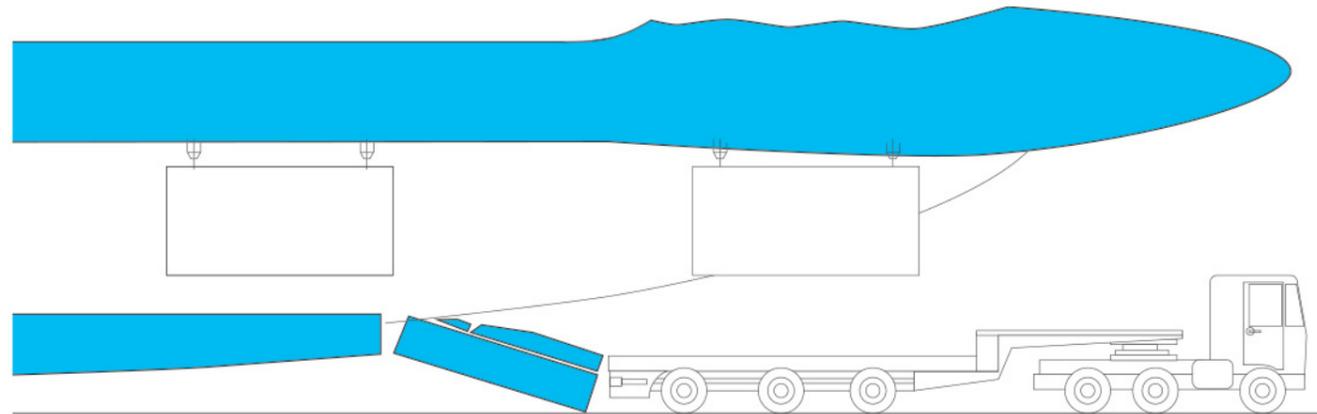
The AN-124-100/150M has the unique ability to adapt its floor loading capacity for the transport of multiple vehicles.

The use of the double-deck loading system means that twice the floor area can be used for the accommodation of vehicles such as saloons, rally cars and certain types of 4 x 4s.





## Loading of cargoes with weight up to 30,000kg (66,139lbs) using aircraft internal cranes via rear cargo



Both the AN-124-100/150M and AN-225 aircraft contain an onboard crane system designed and utilized for the loading and unloading of single pieces weighing up to 30,000kg (66,139lb).

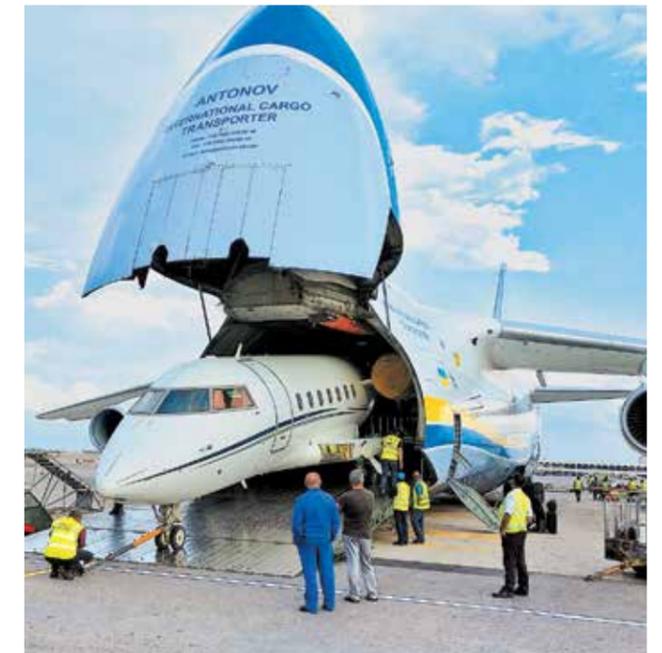
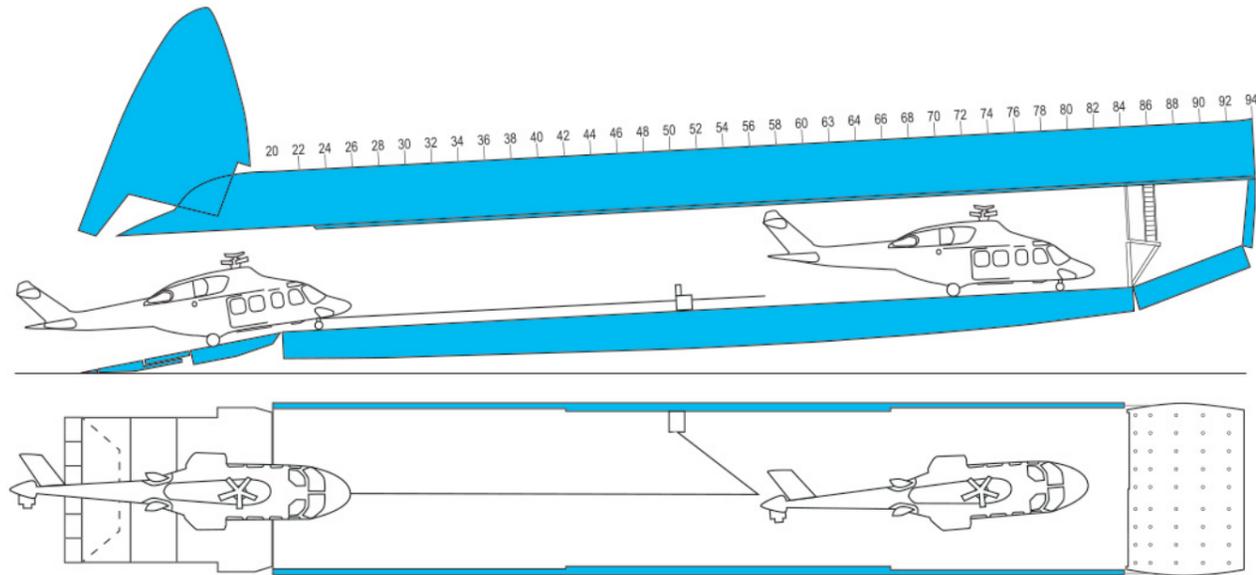
Cargo can be delivered to the aircraft's rear cargo door on trailers/trucks, from which it can be lifted by the aircraft's bridge cranes using four hooking points. The AN-22A also contains an onboard crane system capable of lifting pieces weighing up to 10,000kg (22,046lb).

Cargo loaded by this method must have suitable lifting points and a balanced CoG (Centre of Gravity) to safely load such pieces.





## Loading using aircraft winches



Both the AN-124-100/150M and AN-225 aircraft contain an onboard winch system capable of handling single pieces weighing up to 120,000kg (264,555lbs) (AN-124-150M) and 200,000kg (440,000lbs) (AN-225).

Generally used in conjunction with a ramp system and external cranes, the aircraft's onboard winch system is arranged using a loading pulley block system depending on the weight of item to be loaded.



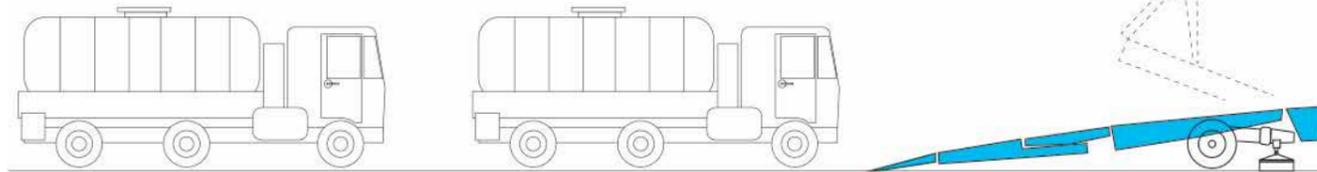
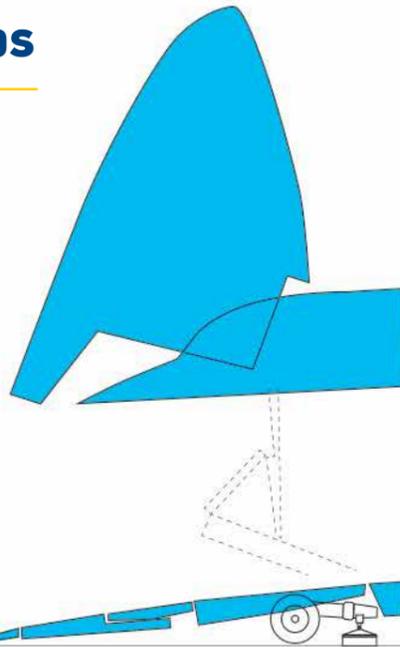


## Loading via nose and rear cargo ramps

Loading of self-propelled vehicles via nose and rear cargo ramps is the simplest method of loading the AN-124-100/150M and AN-225 aircraft.

The aircraft nose door is opened, the aircraft 'kneels', its ramp is unfolded, and vehicles are simply driven into the cargo hold.

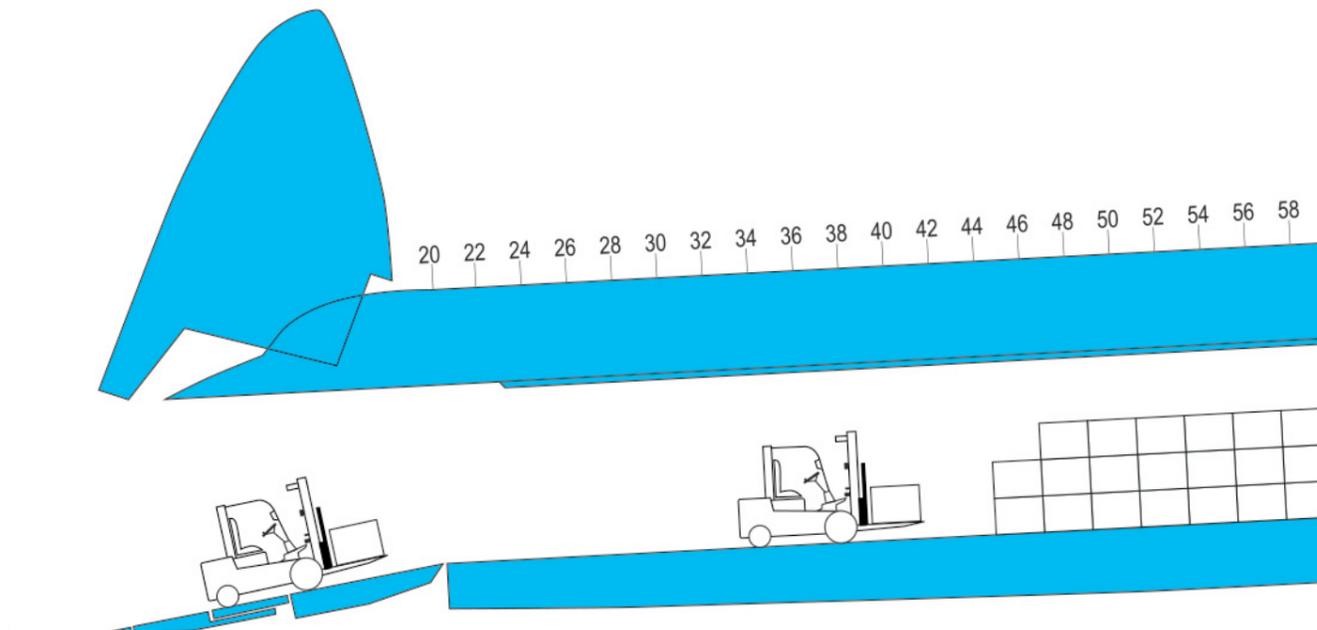
Loading can be carried out through the nose cargo door and offloading via the rear cargo door.





## Loading of general cargo using forklift

**Loading of general cargo using forklift** – another simple method of loading. Forklifts can be used for loading and offloading of wooden pallets, small crates and similar items through the nose cargo door. Forklifts are not the property of Antonov Airlines and are not carried on our aircraft, but they can be provided locally with prior notice.



# KEY DATA



## UKRAINIAN OPERATOR

The international air transportation division of Antonov Company



## FOUNDED 1989

The first to offer the AN-124-100 commercially



## OPEN 24/7

Flying 365 days a year



## SOLE OPERATOR OF AN-225 MRIYA

The one-and-only, world record-breaker



## UKRAINE-US OPEN SKIES AGREEMENT

Exercising fifth freedom traffic rights to and from the US since 2015



## WHY CHOOSE ANTONOV AIRLINES?

- You can load more – we are the only operator of the certified AN-124-100M-150 aircraft, offering an increased payload of up to 150,000kg (330,693lbs);
- You will benefit from unrivalled and unsurpassed experience - we created, developed and continue to lead the AN-124 transportation market;
- We are the world's only airline to offer payloads ranging from 5,500kg (12,346lbs) to 250,000kg (551,156lbs);
- Your valuable cargo will be safely transported within hours or days, saving you time and potentially cost;
- You will be provided with round-the clock communication;
- We are the only airline to use a Flight Manager on each aircraft, providing you with a dedicated point of contact during loading and offloading of cargo.
- You will enjoy a seamless experience - from quotation through to delivery, you will be guided by the same project manager, providing a holistic approach to every operation;

With dedicated professionals accompanying you and your shipment on the ground and in the air, all supported by an unrivalled technical expertise, Antonov Airlines provides a **GLOBAL REACH with a PERSONAL TOUCH**. Quite simply, we are unlike any other – because **'No Other Name Carries More Weight'**.



## Antonov Airlines – the Record Breaker

- The AN-225 'Mriya', a modified six-engine version of the AN-124 'Ruslan', is a truly unique aircraft. Not only has it set 240 world records, but it is a record-breaker in its own right. The AN-225 is the holder of two Guinness World Records: the aircraft with the heaviest take-off weight; and the largest wingspan of any aircraft currently flying.
- On September 27, 2012, the AN-225 broke another Guinness World Record for the highest altitude art exhibition, at 10,150m (33,300ft) above sea level. The airborne exhibition was organised by Producer Centre Boyko and included 500 works of art created by 120 artists.
- On September 22, 1993, an Antonov Airlines AN-124-100 carried the heaviest single piece of cargo, flying a 124,000kg (264,555lbs) power plant generator from Dusseldorf, Germany, to New Delhi, India, setting a Guinness World Record.
- On September 11, 2001, during one flight, the AN-225 set 214 national and 124 international records, including the transportation of the heaviest payload ever airlifted, at 253,820kg (559,577lbs).
- On June 16, 2004 the AN-225 set six world records, including a new payload record for an aircraft when it took off from Prague, Czech Republic carrying a commercial payload of 247,000kg (544,542lbs).
- In August 2009, the AN-225 carried the heaviest 'monocargo' (single piece) in the history of aviation. A generator and loading frame weighing a total of 189,000kg (416,674lbs) was transported from Frankfurt, Germany, to Yerevan, Armenia. The transportation found its way into the Guinness World Records.
- The following year, on June 11, 2010, the AN-225 carried the world's longest piece of air cargo – two 42.1m (137ft 9.5in) test wind turbine blades from Tianjin, China, to Skrydstrup, Denmark.
- On September 27, 2012, the AN-225 broke another Guinness World Record for the highest altitude art exhibition, at 10,150m (33,300ft) above sea level. The airborne exhibition was organised by Producer Centre Boyko and included 500 works of art created by 120 artists.
- In November 2016, Antonov Airlines performed the air transportation of a 155-tonne transformer from São Paulo, Brazil, to Santiago, Chile. The total payload (including packaging) was 182,000kg (401,241lbs). It was the world's second heaviest piece transported by air, and the heaviest piece carried across South America by air.
- The AN-22 holds its own Guinness World Record. With a wing span of 64.4m (211ft 3in) and a maximum take-off weight of 250,000kg (550,000lbs), the AN-22 is the largest propeller driven aircraft ever to enter production. The AN-22 is powered by four 11,030kW (14,79hp) contra-rotating turboprop engines and has a cruising speed of 680 km/h (422 mph).





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