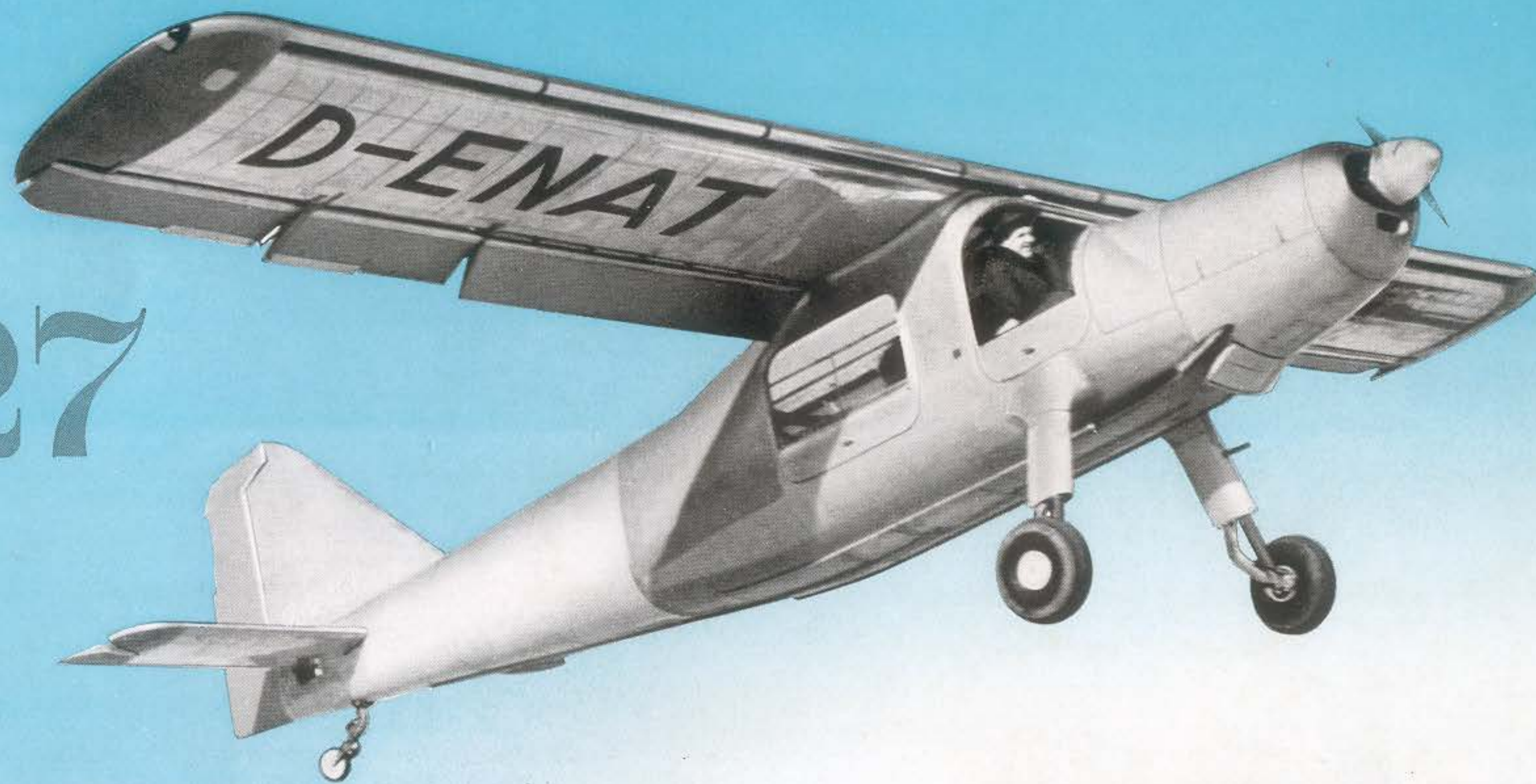
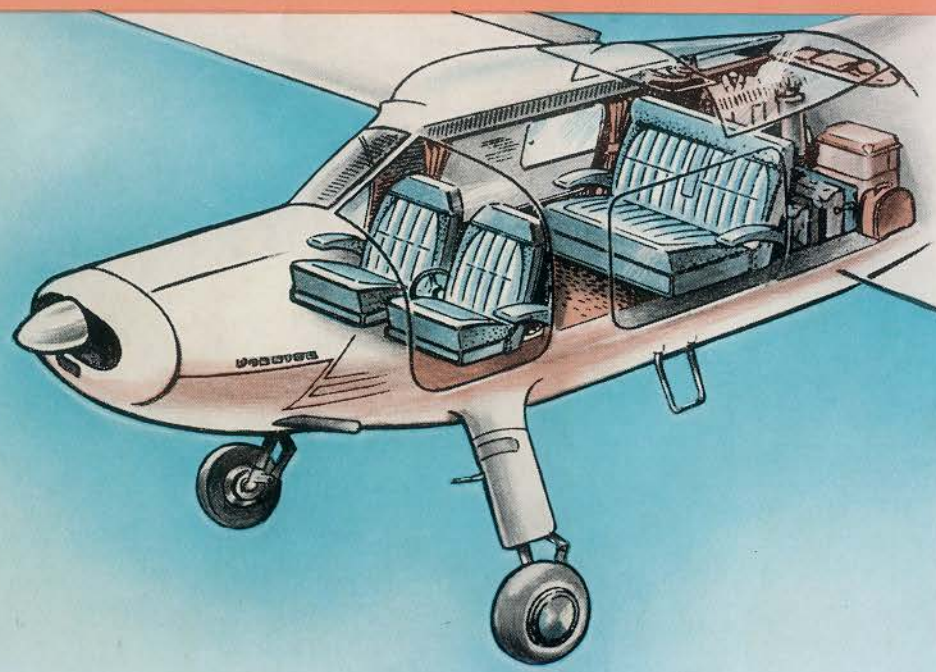
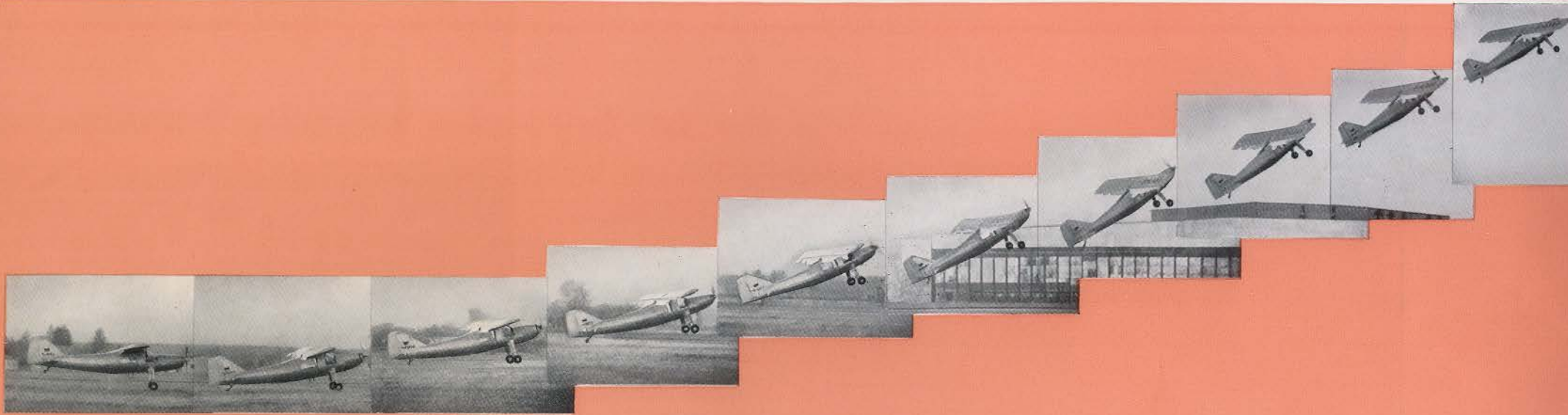
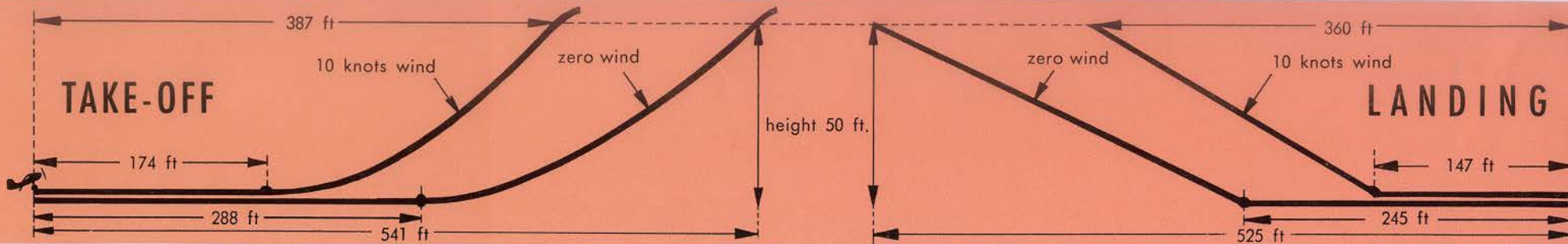


DO 27



DORNIER



### SHORT TAKE-OFF AND LANDING

The picture above illustrates the take-off and landing qualities of the Do 27. Data are based on a normal gross weight of 1,500 kg (3308 lbs.), still air or a headwind of 5 m/sec (approx. 10 knots) and standard atmosphere conditions at sea level.

### SPACE AVAILABLE

The useful space available behind the pilot's and observer's seats is 2.1 m (6' 10<sup>1</sup>/<sub>2</sub>"') long, 1.3 m (4' 3"') wide and approximately 1.35 m (4' 5"') high, giving a total volume of more than 3.5 cbm (approx. 124 cu. ft.). It is accessible from both sides via two doors 0.82 x 1.07 m (2' 8" x 3' 6"').

# DORNIER

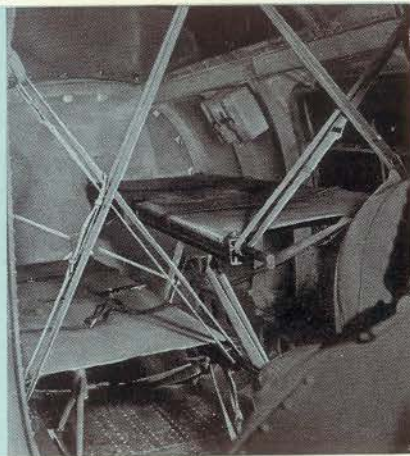
The Do 27 is designed as an efficient, unpretentious aircraft for general use.

Its flying qualities, together with its very short take-off and landing distances, ensure maximum safety and versatility of operation in restricted and unprepared terrain.

The roomy fuselage with its large doors and windows enables the Do 27 to be equipped for a wide variety of applications. It can take 4 to 6 seats or 2 stretchers in the cabin, be fitted with an aerial camera or be used as a small transport.

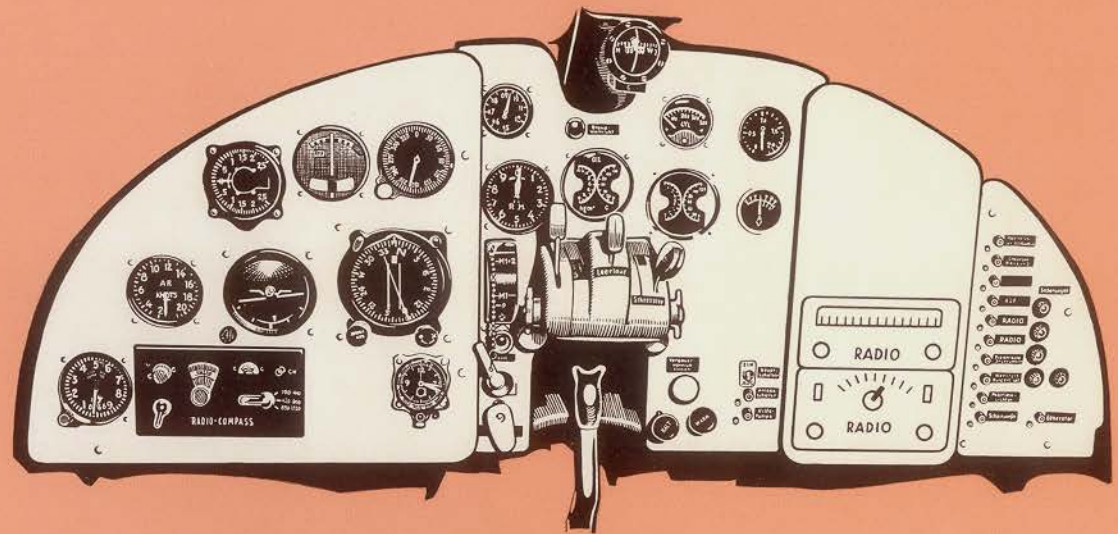
Thanks to its unique low-speed qualities, the Do 27 is particularly suitable for special police duties, for advertising work and above all for agricultural and forestry uses.

The Do 27's simple, rugged structure and its reliable power plant require a minimum of servicing and maintenance.



# R

# DO 27



The Do 27 is a cantilever high-wing monoplane of all-metal construction. The 270 HP. Lycoming GO-480 engine is fitted with a Hartzell variable pitch propeller.

Structural strength corresponds to stress group 3 of the „Bauvorschriften für Flugzeuge (Aircraft Specifications; 1936 edition) for a maximum gross weight of 1,600 kg (3.524 lbs.).

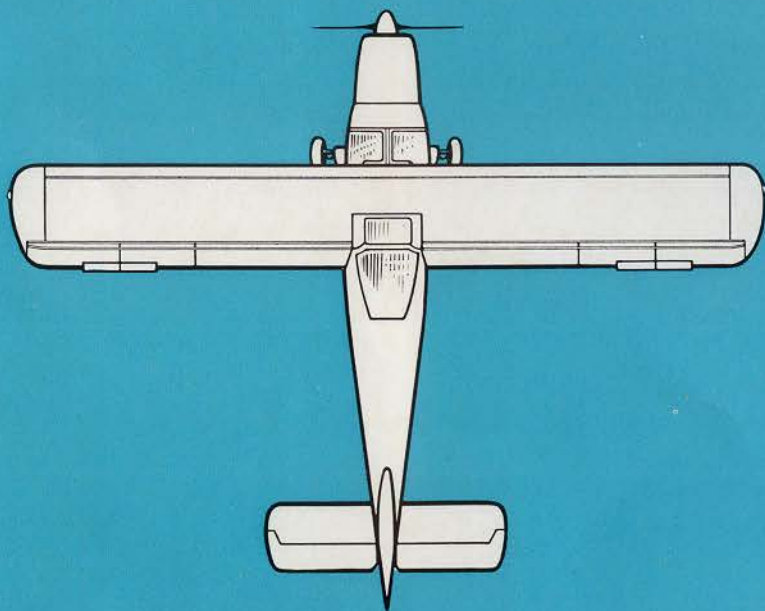
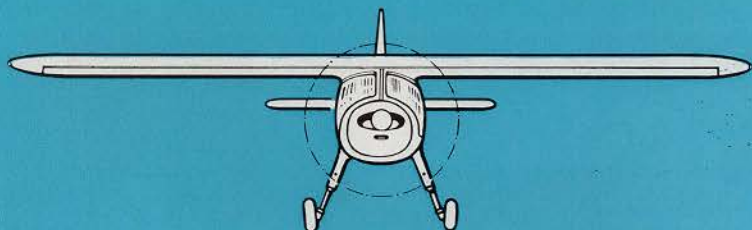
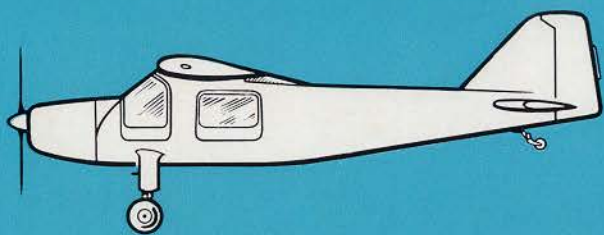
The rectangular wing has a fixed slot over the entire span and double slotted flaps with differentiated deflection towards the wing tips, and gives the aircraft the wide speed range of 1:4. Of special interest are the completely safe stall qualities and the high degree of controllability down to the lowest speeds ensured by the ample

dimensions of all control surfaces. The horizontal tailplane is adjustable in flight for trimming purposes.

Equipment comprises all control and navigation instruments required for safe flight, while radio equipment is fitted to customers' requirements.

The cabin is sound-proofed and is provided with a heating and ventilation system as standard equipment. Dual controls can be installed if required.

The cantilever undercarriage has oleo-pneumatic shock absorbers. The Do 27 can also be supplied with a wheel-ski combination or with floats, instead of wheels.



## ENGINE

Lycoming GO-480-B1A6, 6 cyl., aircooled, with electric starter, Hartzell 98" two blade propeller, constant speed regulation.

## PERFORMANCES

Gross weight	3308	3524 lbs.
Empty weight of the 4-seated passenger plane	2173	2173 lbs.
Useful load incl. radio	1135	1351 lbs.
Wing loading	15.8	16.9 lbs/sq. ft.
Power loading	12.25	13.05 lbs/HP
Maximum speed	156	154 mph
Cruising speed w. 60% t. o. power	128	125 mph
Minimum speed	35	36 mph
Take-off run, still air	288	374 ft.
Landing run, still air	245	262 ft.
Take-off run up to H=49 ft. "	541	643 ft.
Landing run up to H=49 ft. "	525	558 ft.
Ceiling	18045	16404 ft.
Range with 60% performance	540	522 mls.
do. with additional tanks		817 mls.
Rate of climb 0-3281 ft.	2,6	3,5 min
0-6562 ft.	6,5	7,5 min
0-9843 ft.	12	13,5 min
Length overall	31.33 ft.	
Span	39.37 ft.	
Wing area	208.82 sq. ft.	
Maximum height without propeller	8.9 ft.	

**HISTORICAL:** The development of metal aircraft is inseparably bound up with the name of Dornier. It was Dornier who, as early as 1914, led the way in the use of high-strength aluminium alloys in aircraft manufacture, becoming a pioneer of modern all-metal aircraft construction with its smooth-skin monocoque structure.

In the course of its over forty years of existence the Dornier company has not only achieved unforgettable success in the production of longdistance flying boats, but also

set a historical landmark in the development of large aircraft with its Do X in 1929. It was with Dornier aircraft that Franco made the first crossing of the South Atlantic, von Gronau opened the Northern route to the United States via Greenland, and Mittelholzer flew to Cape Town; when war broke out in 1939 Dornier aircraft still held the world record for scheduled Atlantic crossings.

Today the Do 27 incorporates the experience of one of the world's oldest manufacturers of all-metal aircraft.

# DO 27

## DORNIER-WERKE GMBH · FRIEDRICHSHAFEN

PHONE 2401/2409 · TELEPRINTER 0732/885 · CABLES: DORNIERWERKE





# DORNIER-WERKE GMBH, WERKE MÜNCHEN

DORNIER WERKE GMBH, WERKE MÜNCHEN · MÜNCHEN-NEUAUBING · BRUNHAMSTRASSE 21 · TELEFON MÜNCHEN NR. 80835 UND 81891

Major Carl-Arnold Feuer,  
Honorary Secretary,  
The Rawalpindi Flying Club,  
R a w a l p i n d i,  
Pakistan.

16 January 1958

VM-Pa/Fr

Re - Do 27 aircraft

Dear Sir,

We acknowledge receipt of your letter, dated 3 January 1958, addressed to our Friedrichshafen plants.

We appreciate your interest in our above mentioned aircraft and have pleasure of handing you enclosed some literature regarding our plane. We shall be pleased to soon learn from you that the offered plane corresponds to your requirements and shall then have pleasure of submitting to your kind consideration our detailed offer.

As far as the question of our agency in Pakistan and Afghanistan is concerned, may we ask you to kindly let us have your propositions, giving full particulars.

Merely for the sake of good order we would like to mention that our sales are now being handled exclusively by our Munich offices to which all future correspondence should be addressed.

Thanking you, we remain,

Yours faithfully,

DORNIER-WERKE G.m.b.H.  
Werke München

Enclosures (E and D)

2 photos, 2 prospectus  
4 prints, 2 Form 5008,  
5011, 5001, 5005, 1124.  
5010, 5009, 1115

Price list of the Short-Take-Off-and-Landing Airplane  
Do 27

Execution: Multi-purpose plane

Standard version of the Do 27 as minor cargo carrier with motor Lycoming GO-480-B1A6 (270 HP) with Hartzell twoblade variable pitch propeller with constant speed regulation, with adjustable seats for pilot and co-pilot, with variable cabin ventilation, with visual flight instruments, with navigation lights, with service tool kit (hoisting and anchoring slings, clamping devices for control surfaces), with first aid kit, with fire extinguisher, with wheel type undercarriage, without passenger cabin equipment and bottom openings for photographic camera, without radio equipment, without interior and exterior painting

according to our descriptions

DM 117.000,-

Additional equipment:

The standard equipment may be easily and quickly completed by the additional equipment listed below. The prices are as follows:

- |   |    |         |
|---|----|---------|
| 1. Rear seat for two passengers with upholstered seat and strapped seat back, with seat belts | DM | 700,-   |
| 2. As above, however, with upholstered seat back  | DM | 785,-   |
| 3. Additional instruments for flight control:   |    |         |
| Gyro compass  | DM |         |
| Artificial horizon  |    |         |
| Turn and bank indicator   |    |         |
| Rate of climb indicator   |    | 115,-   |
| Clock   |    | 100,-   |
| Sensitive altimeter   |    | 136,-   |
| 4. Second control   | DM | 1.260,- |
| 5. Instruments for flight control for the co-pilot:   |    |         |
| Altimeter   | DM | 140,-   |
| Airspeed indicator  |    | 90,-    |
| Artificial horizon  |    |         |
| Turn and bank indicator   |    |         |
| Rate of climb indicator   |    | 115,-   |





DORNIER

Form 5008 E -2-

6. Landing light	DM	90,-
7. Interruptor for 3 position lights		180,-
8. Variable cabin heating		185,-
9. Bottom doors for photographic equipment		375,-
10. Revolving rear seat for manipulation of aerial survey camera		520,-
11. Stretcher		175,-
12. Exterior painting, single coloured		800,-
13. Radio compass Lear ADF 14 D		11.000,-
14. Radio equipment for visual flight, instrument flight and instrument landing system, see enclosure		

The prices above are to be understood fly-away our airport Oberpfaffenhofen near Munich.

11/11/1957 VM-Ju/Ba



Standard Equipment of the Do 27

Flight and Engine Control Instruments

- |   |                             |
|---|-----------------------------|
| 1 Airspeed indicator with<br>Pitot tube | 1 Cylinder Temperature gage |
| 1 Magnetic compass                      | 1 Oiltemperature gage       |
| 1 Altimeter                             | 1 Oilpressure gage          |
| 1 Tachometer                            | 1 Fuelpressure gage         |
| 1 Manifold pressure gage                | 2 Fuel level gages          |

Electrical Equipment (Voltage of power supply 24 Volts)

- |                          |                                 |
|--------------------------|---------------------------------|
| 1 Generator              | 1 Marking light for Pitot tube  |
| 1 Battery                | 1 Fire warning light            |
| 1 Voltmeter              | 1 Electrical outside receptacle |
| 2 Cabinlights            | 1 Starter switch                |
| 1 Instrument panel light | 1 Ignition switch               |
| 3 Navigation lamps       | Circuit breakers, fuses etc.    |

The power supply is designed as single wire system.

### Direct Service Costs

of the Do 27 with engine Lycoming G0-480-B1A6 as a 5-seater passenger plane, based on the SBAC Standard Method for the determination of direct service costs.

#### Yearly Costs

Depreciation of structure and engine incl. spareparts within 8 years until a final value of 20 % remains, based on a sales-price of DM 125.000,-	DM 14.750,-
Hullinsurance on accidents in the air and on the ground	" 4.000,-
Passenger liability insurance DM 330,- per seat and year incl. loss of baggage	" 1.650,-
	DM 20.400,-

#### Direct Flight Costs

Fuel and lubricants at an average cruising consumption of 38 kg/h based on fuel costs of DM 0,30/l = DM 0,43/kg = DM 1,36/Imp.gal. = DM 1,14/am.gal.	DM/h 16,20
Servicing and overhauling of structure, engine, and propeller including costs of material and labour	" 11,30
Total direct flight costs per hour	DM/h 27,50

Specific Service Costs

Cruising Speed            200 km/h = 124 m/h  
 Medium Range            400 km = 249 miles

Yearly service hours	250	500	1000	1500	2000
Yearly range km miles	44000 27346	88000 54692	176000 109384	264000 164076	352000 218768
Costs per service hour, DM/h	109,-	68,3	47,9	41,1	37,7
Costs per km DM do. per mile DM	0,63 1,01	0,388 0,624	0,272 0,437	0,234 0,376	0,214 0,344
Costs per km and passenger (5 seats) do. per mile	0,126 0,202	0,0776 0,125	0,0544 0,0874	0,0468 0,0752	0,0428 0,0688



Oversea Shipment of Do 27 Aircraft

Specification of F.O.B. Costs and Space Requirements

Prior to the preparation of any oversea shipment it should be investigated if the aircraft can be conveyed by air (for instance to Asia or Africa) or if shipment by sea is preferable (for instance to North, Central and South America).

1) Transportation by Air

The estimation of operating costs should be based on the following data:

Fuel consumption	with 60 % cruis.power	52 l/h	38 kg/h	≈ 84 lbs/h	≈ 13.75 US gals.
	with 50 % cruis.power	43 l/h	31 kg/h	≈ 68 lbs/h	≈ 11.37 US gals.
Oil consumption		1,1 l/h	≈ 1 kg/h	≈ 2,2 lbs/h	

Range with 60 %	cruising power	870 km	≈ 540 mls.
"	" 50 %	910 km	≈ 565 mls.
"	" 60 %		
"	" with res.tanks	1360 km	≈ 845 mls.
"	" 50 % cruising power with res.tanks	1425 km	≈ 885 mls.

Additional costs: take-off and landing fees, storage and guard fees, insurance rates.

2) Shipment by Sea

The aircraft will be shipped in 3 seaworthy cases which should be loaded in the interior of the vessel.

1st case: Fuselage without power plant, wing unit, rudder, vertical fin tip, elevator unit, shock absorbers, and tail skid  
7.62x2.00x1,67 (25x6.56x5.48 ft) 25.40 m<sup>3</sup>  
Propeller, shock absorbers, tail skid, tools, rudder, ≈ 898 cu.ft.  
vertical fin tip, and elevator unit are fastened in the case.

2nd case: Wing Unit = 2 wings with landing flap, ailerons, and tanks 6.36x1.06x2.24 m 15.10 m<sup>3</sup>  
(20.87x3.48x7.35 ft.) ≈ 533 cu.ft.

3rd case: Power Plant = engine and engine mount without propeller 1.32x1.00x1.05 m 1.38 m<sup>3</sup>  
(4.33x3.28x3.45 ft.) ≈ 49 cu.ft.

Total gross weight of the 3 cases: 41.88 m<sup>3</sup>  
(varying depending on degree of moisture of wood) 4500 kg ≈ 9912 lbs. ≈ 1480 cu.ft.

Total net weight of the contents of the 3 cases including ground handling equipment and tool kit 1050 kg ≈ 2313 lbs.  
plus weight of radio and/or other equipment ordered.

Disassembly of test-flown aircraft and costs for packing	DM 4950,--
Other F.O.B. costs	DM 900,--

ABOVE DATA ARE GIVEN WITHOUT OBLIGATION ON OUR PART!