

GLE CASE STUDY | 2020

Heathrow Airport

LONDON, UK





Introduction

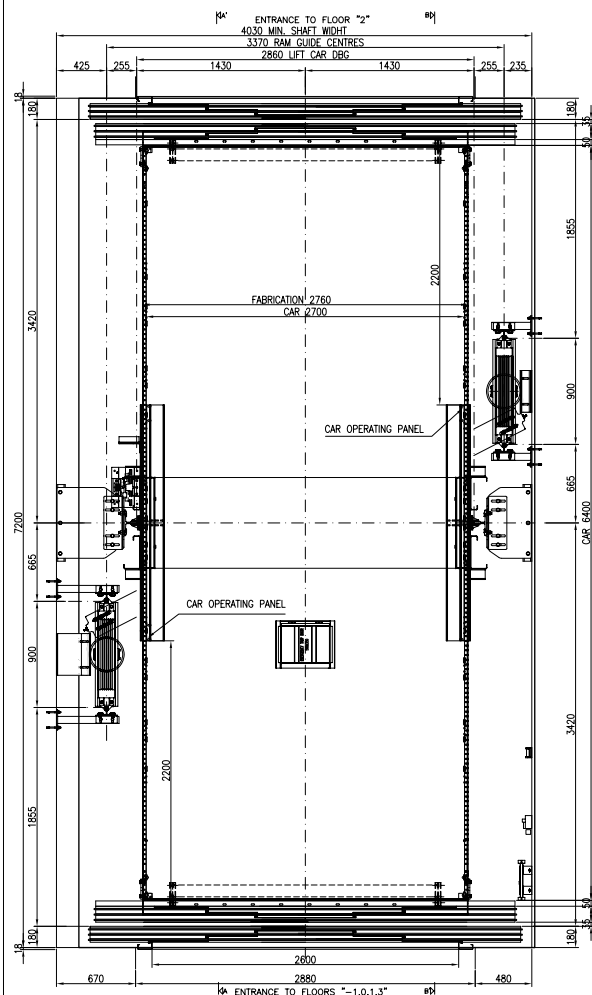
One of our best clients presented us another challenge, which was to supply a hydraulic CAR LIFT FOR ARMORED CARS to be installed in the brand new Terminal 5 of the Heathrow Airport in London. This is to be intended as a typical hydraulic car lift but for these special cars for VIP people.

- The 5.000 kg lift travels at 0.5m/s, serves 4 floors and 21m.
- G.M.V. Telescopic piston hydraulic equipment.
- The car is 6,600 (w) X 3,000 (d) X 3,500 (h) mm.
- The doors are Wittur 6 panels centre openign 2600 (w) X 2400 (d)

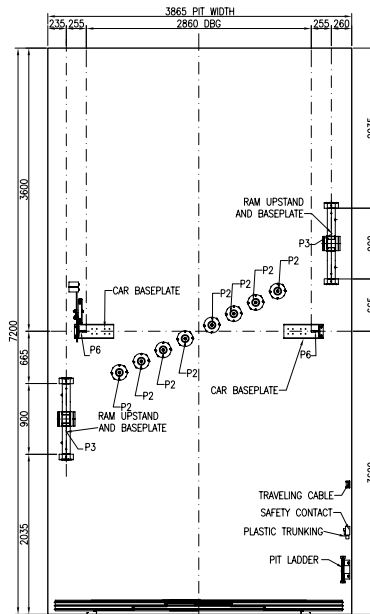


After it was carefully designed, the overall manufacture took 12 weeks and the result is a top quality equipment, ready to safely transport armored cars in the VIP area of the Terminal 5.

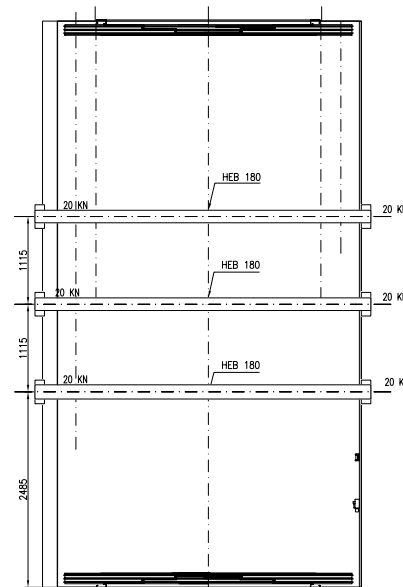




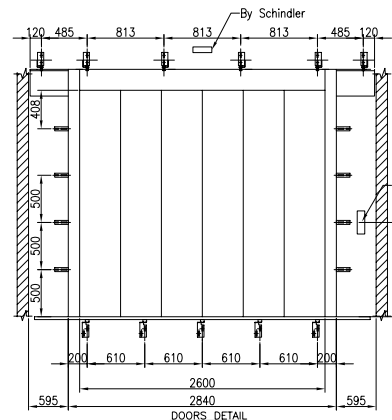
GENERAL PLAN
SCALE: 1/20



PIT PLAN
SCALE: 1/30



LIFTING BEAM DETAIL
SCALE: 1/30

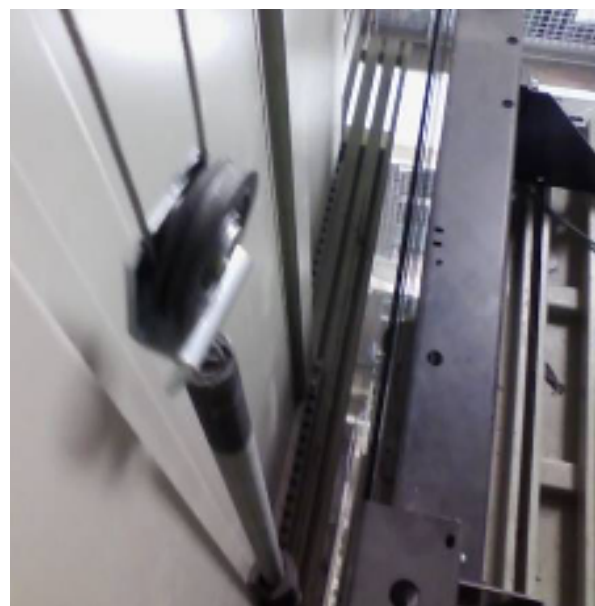


DOORS DETAIL

FECHA: 11.09.12	USUARIO: N. de la VERDE	MODIFICACION: DIM. HUECO/ DIST ENTRE ZARPAS/ TRAMOS DE GUAS/ MANOBRAS/BOT. PISO Y DISPLAY By SCHINDLER	
FECHA: 05.06.12	USUARIO: N. de la VERDE	MODIFICACION: OB DE ZARPAS DE 18 mm/ 5 PARADAS EN CAJIN	
FECHA: 25.05.12	USUARIO: N. de la VERDE	MODIFICACION: ESTRUCTURA DESCENTRADA CON EL HUECO/ZARPAS ESPECIALES/DIM. CM.	
FECHA: 02.05.12	USUARIO: N. de la VERDE	MODIFICACION: DISTANCIA ENTRE PASADERAS EN SECCION/ CABINA DESPLAZADA EN SECCION	
FECHA: 30.04.12	USUARIO: N. de la VERDE	MODIFICACION: DISTANCIA ENTRE PASADERAS/ BOTONERAS DE PISO Y DISPLAY EN CAJERA/TRAMOS DE GUAS	
FECHA: 21.04.12	USUARIO: N. de la VERDE	MODIFICACION: DIM. HUECO/ DISTANCIA ENTRE PLANTAS/ POSICION DE EMBARQUE	
FECHA: 17.02.12	USUARIO: N. de la VERDE	MODIFICACION: MECANICA/DECORACION DE CABINA/DIM. DE CM	
FECHA: 15/12/11	USUARIO: D. CAYON	MODIFICACION: DIMENSIONES DE ULTIMA PARADA Y FOSO	
FECHA: 21.10.2011	USUARIO: P. FDEZ.	MODIFICACION: PASO LIBRE 2600	
FECHA: 20.10.2011	USUARIO: P. FDEZ.	MODIFICACION: TEXTOS CARGAS EN FOSO Y VIGAS	
FECHA: 19.10.2011	USUARIO: P. FDEZ.	MODIFICACION: ORIENTACION DEL PLANO	

N° INSTALATION: G1592/11-3/1	
CALCULATION	
WEIGHT	Kg
CAR	3275
NOMINAL LOAD	5000
CAR FRAME	1700
CAR DOORS	200
CABLES	125
TOTAL LOAD	6025
RAM + KIT	500
TOTAL LOAD ON RAM	5300
OVER LOAD FACTOR	2:1
DYNAMIC LOAD	5000
RAM / OIL / PLAR	700
LOAD BELOW EACH RAM CLINDRE (P3)	2x58000 N
LOAD BELOW EACH BUFFER SPRING (P2)	8x70000 N
GUIDE REACTIONS	
CAR GUIDE REACTIONS	
FX= 29500Fyy= 24900Fzz= 232000	
SWFT REACTIONS	
FX= 29500Fyy= 24900Fzz= 232000	
Fxx	Fyy
Fzz	
GENERAL CHARACTERISTICS	
LIFT TYPE	HYDRAULIC
CHARGE NOMINALE (kg)	5000
SPEED (m/sec)	0,52/0,15 m/s
STOPS	5
CAR GUIDE RAILS	T140-2B
FIXING ANKLE	14 x 2
CAR FRAME TYPE	SPECIAL
# PULLEY (mm)	#600
# CABLES/ N° (mm/Nbre)	12x12
LENGTH OF CABLES (mm)	32.3
LENGTH OF RAM (mm)	10750
#/ RAM TYPE (mm)	200/10
OIL FLOW (L/min)	500 L/min
OIL TYPE	CEPSA
ELECT. VALVE TENSION	48/12
CONTROL PANEL	Full Collect.
NOMINAL FREQUENCY (Hz)	50 Hz
SUSPENSION	2:1
CAPACITY (N° OF PERSONS)	66
TRAVEL (mm)	21000 mm
LANDINGS (N°)	5
MAX. DIST. BETWEEN FIXINGS (mm)	1400 max
CAR TYPE (Cod)	Ref: Mitra (8170)
BUFFER TYPE/ N°	300/179
CABLES COMPOSITION	#19+1
BREAKING FORCE	7270 Kg.
RAM STAGES	2
MAX. PRESSURE (Atm)	35 Bar
HORSE POWER (CV)	50 CV/ 36.8 kW
LITRES OF OIL (L)	1700 L
SOFT STARTER	□ Δ
TENSION (V)	415 V
NOMINAL CURRENT (A)	95.2
STARTING CURRENT (A)	142.8
ESPECIFICATIONS OF CAR / ESPECIFICACIONES DE CABINA	
TYPE / MODELO	Ref.: Mitra (8170)
ROOF DECORATION / DECORACION SOBRE TECHO	Ref.: 710
CAR WALL PANEL FINISH / ACABADO CABINA	ST. SL. DAMA 020019
FINISHES / ENBELLECEDORES	ST. ST.
HANDRAILS / PASAMANOS	4 x PSI2
FLOOR / SUELO	Aluminium Chequerplate
MIRROR / ESPEJO	DIMENSIONS / DIMENSIONES
SITUATION / SITUACION	NO
LIGHTING / TIPO DE ILUMINACION	VR LIGHT FITTINGS
PHOTOCELL / FOTOCELULA	NO
ELECTRONIC SAFE EDGE / BARRERA FOTOELECTRICA	2D
NUMBER OF STOPS / NUMERO DE PARADAS	5
DOOR TYPE / MODELO DE PUERTAS	HYDRA 2600
CHARACTERISTICS	DATE
WEIGHT:	11.09.12
MATERIAL:	P. FERNANDEZ
FINISHED:	14.09.12
N-PIECES:	J.G. Cabo
GENERAL PLAN OF HYDRAULIC LIFT TO 66 PEOPLE, 500 KG. (BY TABLE 1.1.A)	
CODE:	AP22008-11M/G1592-11
PRICE:	1 / 2
CANCEL TO: AP22008-11M/G1592-11	
CANCEL BY: N. de la VERDE	







TECHNICAL DATA

ROPING RATIO	INDIRECT ACTING
LOAD CAPACITY	5000 KG
TRAVEL DISTANCE	21000 mm
NUMBER OF STOPS	5 DOUBLE ENTRANCE 180°
SPEED	0.5 M/S
LIFT CAR	CAR LIFT
DIMENSIONS	2700X6400X2500 MM
PANELS	STAINLESS STEEL DAMA FROM STEEL COLOR REINFORCED STEEL
COPS PUSHES	DMG
SAFETY EDGE	CEDES
LIFT CAR FRAME	SPECIAL FOR CAR FRAME
ROPING RATIO	2:1
MAIN CHARACTERISTICS	P+Q 10500 KG
MAX SPEED	0.5 M/S
MAX PASSENGER LOAD	N/A
MAX DUTY LOAD	500 KG
CAR GUIDE RAILS	
MAKER	SAVERA
TYPE	T140-2/B
HYDRAULIC	
MAKER	G.M.V. HYDRAULICS
NUMBER OF PISTONS	2
NUMBER OF POWER UNITS	2
POWER	36.8 kw
STARTING CURRENT (SS)	85 A
RUNNING CURRENT	95.2 A
RADIATED THERMAL OUTPUT	13.20 KW



LANDING DOORS

MAKER	WITTUR
TYPE	HYDRA SUPRA
CLEAR OPENING	
TRACKS	REINFORCED STEEL

LIFT CAR DOORS

MAKER	WITTUR
TYPE	HYDRA SUPRA
CLEAR OPENING	2600X2400 MM
TRACKS	5615X3000 MM

BUFFERS

MAKER	ACLA
MODEL	300.179
NUMBER	4
MAX. STRENGTH	15.5 KN

PAWL DEVICE

YES

VOLTAGE

415 VAC 50HZ

SHAFT LIGHTING VOLTAGE

220 VAC 50 HZ

CONTROL SYSTEM

ALTAMIRA

APPLICABLE STANDARDS

EN81-20
EN81-28
EN81-73