

LCQ4: Fire protection and fire fighting installations in tunnels

Annex

Fire Fighting Equipment in Toll Tunnels

Tunnel	Cross Harbour Tunnel	Eastern Harbour Crossing	Western Harbour Crossing	Aberdeen Tunnel	Lion Rock Tunnel	Shing Mun Tunnel	Tseung Kwan O Tunnel	Tate's Cairn Tunnel	Tai Lam Tunnel
Tube Length (km)	1.9	2	1.97	1.9	1.4	2.6	0.9	4	3.73
Date of operation	2.8.1972	21.9.1989	30.4.1997	12.3.1982	14.11.1967(S) 18.1.1978 (N)	20.4.1990	9.11.1990	26.6.1991	25.5.1998
No. of break glass devices (each tube)	78	78	62	38	16	100	16	80	75
No. of emergency telephones (each tube)	78	54	42	38	28	100	16	78	76
No. of emergency exits (each tube)	18	27	21	3	-*	23	8	24	36
No. of fire extinguishers (each tube)	117	162	84	114	28	200	32	160	152
No. of ventilation/jet fans (each tube)	10	15	23	4**	34	44	20	16	20 (S) 19 (N)
No. of recovery vehicles and patrol cars	10	8	9	6	5	7	6	7	11
No. of hose reels (each tube)	-#	51	41	-##	16	51	17	42	75
No. of fire hydrants (each tube)	38	27	21	38(S) 37(N)	16	25	8	40	76
No. of CCTVs (each tube)	12	15	21	15	15	14	9	22	21

Notes

* Owing to site constraint, there are insurmountable technical problems to install emergency exits in Lion Rock Tunnel. To enhance the safety standard, a drencher system was installed in the Lion Rock Tunnel in 1997 upon the recommendation of Fire Services Department. The Tunnel is also equipped with many jet fans for fast extraction of smoke during fire incidents.

** Number of ventilation / jet fans installed inside the tunnel tubes varies with the design of the tunnel ventilation system and specifications of fans.

Due to constraints imposed by the original design, hose reels could not be installed. Hoses are stored on the patrol cars.

Hoses are stored on the light recovery vehicles.

(S) – South Bound Tube

(N) – North Bound Tube