

Appendix 3.7.48 Sensitivity Analysis of Railway Revenue of Passenger to Fare Change

Year:	1995
Elasticity to Relative Railway Fare to Ticket Fare	-0.6670
Elasticity to GDP per Capita	3.9553

(Revenue of Railway) 00000 as Fare Rate Ratio(%)

Ratio of Bus Fare Rate(%) of Railway Fare Rate(%)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40	45	50
0	1.00000	1.00164	1.01721	1.02590	1.04451	1.04311	1.05169	1.06027	1.06884	1.07739	1.08594	1.09447	1.10299	1.11151	1.12001	1.12850	1.17062	1.21290	1.25475	1.29639	1.33782	1.37905	1.42009
1	1.00134	1.01000	1.01864	1.02728	1.03590	1.04451	1.05311	1.06170	1.07027	1.07884	1.08739	1.09594	1.10448	1.11300	1.12151	1.13001	1.17239	1.21463	1.25644	1.29813	1.33962	1.38090	1.42200
2	1.00268	1.01134	1.02000	1.02864	1.03728	1.04590	1.05451	1.06311	1.07170	1.08028	1.08884	1.09739	1.10594	1.11448	1.12300	1.13151	1.17390	1.21615	1.25811	1.29986	1.34140	1.38274	1.42389
3	1.00400	1.01268	1.02134	1.03000	1.03864	1.04728	1.05590	1.06451	1.07311	1.08170	1.09028	1.09884	1.10739	1.11594	1.12448	1.13300	1.17539	1.21763	1.25977	1.30158	1.34317	1.38457	1.42577
4	1.00531	1.01400	1.02268	1.03134	1.04000	1.04864	1.05728	1.06590	1.07451	1.08311	1.09170	1.10028	1.10884	1.11739	1.12594	1.13448	1.17687	1.21911	1.26125	1.30307	1.34462	1.38597	1.42715
5	1.00664	1.01531	1.02400	1.03268	1.04134	1.05000	1.05864	1.06728	1.07590	1.08451	1.09311	1.10170	1.11028	1.11884	1.12739	1.13594	1.17833	1.22057	1.26271	1.30453	1.34616	1.38761	1.42889
6	1.00796	1.01661	1.02531	1.03400	1.04268	1.05134	1.06000	1.06864	1.07728	1.08590	1.09451	1.10311	1.11170	1.12028	1.12884	1.13739	1.17978	1.22202	1.26416	1.30598	1.34761	1.38916	1.43044
7	1.00918	1.01790	1.02661	1.03531	1.04400	1.05268	1.06134	1.07000	1.07864	1.08728	1.09590	1.10451	1.11311	1.12170	1.13028	1.13884	1.18123	1.22347	1.26561	1.30743	1.34906	1.39061	1.43189
8	1.01045	1.01918	1.02790	1.03661	1.04531	1.05400	1.06268	1.07134	1.08000	1.08864	1.09728	1.10590	1.11451	1.12311	1.13170	1.14028	1.18267	1.22491	1.26705	1.30887	1.35050	1.39205	1.43333
9	1.01170	1.02045	1.02918	1.03790	1.04661	1.05531	1.06400	1.07268	1.08134	1.09000	1.09864	1.10728	1.11590	1.12451	1.13311	1.14170	1.18409	1.22633	1.26847	1.31030	1.35193	1.39348	1.43476
10	1.01295	1.02171	1.03045	1.03918	1.04791	1.05661	1.06531	1.07400	1.08268	1.09134	1.10000	1.10864	1.11728	1.12590	1.13451	1.14311	1.18550	1.22774	1.26988	1.31171	1.35334	1.39489	1.43617
11	1.01419	1.02296	1.03171	1.04045	1.04918	1.05791	1.06661	1.07531	1.08400	1.09268	1.10134	1.11000	1.11864	1.12728	1.13590	1.14451	1.18689	1.22913	1.27127	1.31310	1.35473	1.39628	1.43756
12	1.01542	1.02420	1.03296	1.04171	1.05045	1.05918	1.06791	1.07661	1.08531	1.09400	1.10268	1.11134	1.12000	1.12864	1.13728	1.14590	1.18829	1.23053	1.27267	1.31450	1.35613	1.39768	1.43896
13	1.01664	1.02543	1.03420	1.04296	1.05171	1.06045	1.06918	1.07791	1.08661	1.09531	1.10400	1.11268	1.12134	1.13000	1.13864	1.14728	1.18967	1.23191	1.27405	1.31588	1.35751	1.39906	1.44034
14	1.01785	1.02665	1.03543	1.04420	1.05296	1.06171	1.07045	1.07918	1.08791	1.09661	1.10531	1.11400	1.12268	1.13134	1.14000	1.14864	1.19103	1.23327	1.27541	1.31724	1.35887	1.40042	1.44170
15	1.01905	1.02786	1.03666	1.04544	1.05421	1.06297	1.07171	1.08045	1.08918	1.09791	1.10661	1.11531	1.12400	1.13268	1.14134	1.15000	1.19239	1.23463	1.27677	1.31860	1.36023	1.40178	1.44306
20	1.02492	1.03378	1.04263	1.05147	1.06029	1.06910	1.07790	1.08669	1.09547	1.10424	1.11300	1.12175	1.13044	1.13921	1.14792	1.15663	1.20000	1.24313	1.28603	1.32870	1.37116	1.41342	1.45544
25	1.03059	1.03950	1.04839	1.05728	1.06615	1.07501	1.08386	1.09270	1.10153	1.11035	1.11915	1.12795	1.13673	1.14550	1.15427	1.16302	1.20640	1.25053	1.29443	1.33810	1.38164	1.42505	1.46822
30	1.03606	1.04507	1.05396	1.06289	1.07181	1.08072	1.08962	1.09850	1.10738	1.11624	1.12509	1.13393	1.14277	1.15159	1.16040	1.16920	1.21400	1.25913	1.30403	1.34870	1.39314	1.43735	1.48132
35	1.04135	1.05035	1.05934	1.06832	1.07729	1.08624	1.09518	1.10411	1.11303	1.12194	1.13084	1.13973	1.14860	1.15747	1.16632	1.17517	1.22000	1.26513	1.31003	1.35470	1.39914	1.44335	1.48732
40	1.04648	1.05552	1.06456	1.07358	1.08259	1.09159	1.10057	1.10953	1.11848	1.12742	1.13634	1.14524	1.15413	1.16300	1.17187	1.18072	1.22560	1.27073	1.31563	1.36030	1.40474	1.44895	1.49292
45	1.05145	1.06054	1.06961	1.07868	1.08773	1.09677	1.10580	1.11482	1.12383	1.13283	1.14181	1.15078	1.15974	1.16869	1.17763	1.18656	1.23140	1.27653	1.32143	1.36610	1.41064	1.45495	1.49902
50	1.05627	1.06540	1.07457	1.08363	1.09272	1.10180	1.11087	1.11993	1.12898	1.13802	1.14704	1.15606	1.16508	1.17409	1.18309	1.19208	1.23690	1.28203	1.32693	1.37160	1.41614	1.46055	1.50472

Appendix 3.7.49 Estimates of Traffic Demand Elasticity and Cross-Elasticity to Fare (Freight)

NO	Estimate	General		Elasticities				Sign Condition	R ²	DW	General Period	Appropriateness
		Estimate	Standard Error	ETAUP	ETADP	WTAUP	WTADP					
1	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.66286	1.62349	1982/89-1993/94	Non
2	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.67769	1.16483	1982/89-1993/94	Non
3	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.65011	2.17623	1982/89-1993/94	Low
4	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.67234	2.43466	1982/89-1993/94	Non
5	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.83971	3.60318	1982/89-1993/94	Low
6	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.67784	2.69809	1982/89-1993/94	Non
7	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.81294	2.50537	1982/89-1993/94	High
8	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.90125	2.88443	1982/89-1993/94	Low
9	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.87240	1.74978	1982/89-1993/94	Low
10	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.90125	2.04443	1982/89-1993/94	Low
11	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.87240	1.74978	1982/89-1993/94	Low
12	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.81012	1.73430	1982/89-1993/94	Low
13	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Logical	0.85442	1.46778	1982/89-1993/94	Low
14	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.81012	2.13420	1982/89-1993/94	Non
15	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.85442	1.46778	1982/89-1993/94	Non
16	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.90533	2.34178	1982/89-1993/94	Non
17	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.87116	1.83113	1982/89-1993/94	Non
18	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.90533	2.17647	1982/89-1993/94	Non
19	TONNKM (S.E.)	0.00223	0.00022	0.00223	0.00022	0.00223	0.00022	Non-logical	0.84859	1.83113	1982/89-1993/94	Non

Note: 1. S.E.: Standard Error of parameter; T-value: Value in Probability distribution of T of student; R: Coefficient of determination; DW: Durbin Watson test

Appendix 3.7.50 Sensitivity Analysis of Railway Traffic Demand of Freight to Fare Change

Year	1995
Elasticity to Railway Fare	-0.01796
Cost Elasticity to Truck Fare	0.03234
Cost Elasticity to Waterway Fare	0.00025
Elasticity to Product Volume	1.23710

Traffic Demand of Railway: 1.00000 at Fare Rate Ratio=0%

Ratio of Truck & Waterway of Railway Fare Rate(%)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40	45	50
0	1.00000	1.00501	1.01000	1.01497	1.01991	1.02483	1.02971	1.03459	1.03943	1.04425	1.04905	1.05384	1.05860	1.06334	1.06806	1.07276	1.07745	1.14939	1.16276	1.17622	1.18979	1.20339	1.21696
1	0.99902	1.00403	1.00902	1.01478	1.01972	1.02464	1.02953	1.03440	1.03925	1.04407	1.04888	1.05366	1.05842	1.06315	1.06787	1.07257	1.07726	1.14921	1.16257	1.17603	1.18950	1.20308	1.21667
2	0.99805	1.00306	1.00805	1.01381	1.01875	1.02367	1.02856	1.03343	1.03828	1.04310	1.04789	1.05266	1.05742	1.06215	1.06687	1.07158	1.07628	1.14823	1.16159	1.17505	1.18852	1.20200	1.21549
3	0.99707	1.00208	1.00707	1.01283	1.01777	1.02269	1.02758	1.03245	1.03730	1.04212	1.04691	1.05168	1.05644	1.06117	1.06589	1.07061	1.07532	1.14727	1.16063	1.17409	1.18756	1.20104	1.21453
4	0.99609	1.00110	1.00609	1.01185	1.01679	1.02171	1.02660	1.03147	1.03632	1.04114	1.04593	1.05070	1.05546	1.06021	1.06495	1.06968	1.07441	1.14636	1.15972	1.17318	1.18665	1.20013	1.21362
5	0.99511	1.00012	1.00511	1.01086	1.01580	1.02072	1.02561	1.03048	1.03533	1.04015	1.04494	1.04971	1.05447	1.05922	1.06396	1.06870	1.07343	1.14538	1.15874	1.17220	1.18567	1.20015	1.21364
6	0.99413	1.00014	1.00513	1.01088	1.01582	1.02074	1.02563	1.03050	1.03535	1.04017	1.04496	1.04973	1.05449	1.05924	1.06398	1.06872	1.07345	1.14540	1.15876	1.17222	1.18569	1.20017	1.21366
7	0.99315	1.00016	1.00515	1.01090	1.01584	1.02076	1.02565	1.03052	1.03537	1.04019	1.04498	1.04975	1.05451	1.05926	1.06400	1.06874	1.07347	1.14542	1.15878	1.17224	1.18571	1.20019	1.21368
8	0.99217	1.00018	1.00517	1.01092	1.01586	1.02078	1.02567	1.03054	1.03539	1.04021	1.04500	1.04977	1.05453	1.05928	1.06402	1.06876	1.07349	1.14544	1.15880	1.17226	1.18573	1.20021	1.21370
9	0.99119	1.00020	1.00519	1.01094	1.01588	1.02080	1.02569	1.03056	1.03541	1.04023	1.04502	1.04979	1.05455	1.05930	1.06404	1.06878	1.07351	1.14546	1.15882	1.17228	1.18575	1.20023	1.21372
10	0.99021	1.00022	1.00521	1.01096	1.01590	1.02082	1.02571	1.03058	1.03543	1.04025	1.04504	1.04981	1.05457	1.05932	1.06406	1.06880	1.07353	1.14548	1.15884	1.17230	1.18577	1.20025	1.21374
11	0.98923	1.00024	1.00523	1.01098	1.01592	1.02084	1.02573	1.03060	1.03545	1.04027	1.04506	1.04983	1.05459	1.05934	1.06408	1.06882	1.07355	1.14550	1.15886	1.17232	1.18579	1.20027	1.21376
12	0.98825	1.00026	1.00525	1.01099	1.01593	1.02085	1.02574	1.03061	1.03546	1.04028	1.04507	1.04985	1.05461	1.05936	1.06410	1.06884	1.07357	1.14552	1.15888	1.17234	1.18581	1.20029	1.21378
13	0.98727	1.00028	1.00527	1.01100	1.01594	1.02086	1.02575	1.03062	1.03547	1.04029	1.04508	1.04987	1.05463	1.05938	1.06412	1.06886	1.07359	1.14554	1.15890	1.17236	1.18583	1.20031	1.21380
14	0.98629	1.00030	1.00529	1.01101	1.01595	1.02087	1.02576	1.03063	1.03549	1.04031	1.04510	1.04989	1.05465	1.05940	1.06414	1.06888	1.07361	1.14556	1.15892	1.17238	1.18585	1.20033	1.21382
15	0.98531	1.00032	1.00531	1.01102	1.01596	1.02088	1.02577	1.03064	1.03550	1.04032	1.04511	1.04990	1.05466	1.05941	1.06415	1.06889	1.07362	1.14558	1.15894	1.17240	1.18587	1.20035	1.21384
20	0.98025	1.00037	1.00535	1.01105	1.01598	1.02090	1.02579	1.03065	1.03551	1.04033	1.04512	1.04991	1.05467	1.05942	1.06416	1.06890	1.07363	1.14561	1.15896	1.17242	1.18589	1.20037	1.21386
25	0.97519	1.00041	1.00533	1.01106	1.01599	1.02091	1.02580	1.03066	1.03552	1.04034	1.04513	1.04992	1.05468	1.05943	1.06417	1.06891	1.07364	1.14563	1.15898	1.17244	1.18591	1.20039	1.21388
30	0.97013	1.00045	1.00537	1.01107	1.01600	1.02092	1.02581	1.03067	1.03553	1.04035	1.04514	1.04993	1.05469	1.05944	1.06418	1.06892	1.07365	1.14565	1.15900	1.17246	1.18593	1.20041	1.21390
35	0.96507	1.00049	1.00541	1.01108	1.01601	1.02093	1.02582	1.03068	1.03554	1.04036	1.04515	1.04994	1.05470	1.05945	1.06419	1.06893	1.07366	1.14567	1.15902	1.17248	1.18595	1.20043	1.21392
40	0.96001	1.00053	1.00543	1.01109	1.01602	1.02094	1.02583	1.03069	1.03555	1.04037	1.04516	1.04995	1.05471	1.05946	1.06420	1.06894	1.07367	1.14569	1.15904	1.17250	1.18597	1.20045	1.21394
45	0.95495	1.00057	1.00545	1.01110	1.01603	1.02095	1.02584	1.03070	1.03556	1.04038	1.04517	1.04996	1.05472	1.05947	1.06421	1.06895	1.07368	1.14571	1.15906	1.17252	1.18599	1.20047	1.21396
50	0.94989	1.00061	1.00547	1.01111	1.01604	1.02096	1.02585	1.03071	1.03557	1.04039	1.04518	1.04997	1.05473	1.05948	1.06422	1.06896	1.07369	1.14573	1.15908	1.17254	1.18601	1.20049	1.21398

Appendix 3.7.51 Sensitivity Analysis of Railway Traffic Demand of Freight to Fare Change

Year	1996
Elasticity to Railway Fare	-0.01746
Cross Elasticity to Truck Fare	0.10324
Cross Elasticity to Waterway Fare	0.40053
Elasticity to Produced Volume	1.23210

(Revenue of Railway: 1.00000 at Fare Rate Ratio=0%)

Ratio of Truck & Waterway Fare Rate (%)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40	45	50
0	1.00000	1.06501	1.01000	1.01497	1.01499	1.02482	1.02871	1.03459	1.03943	1.04426	1.04906	1.05384	1.05860	1.06334	1.06806	1.07276	1.09595	1.11867	1.14093	1.16274	1.18422	1.20529	1.22600
1	1.00932	1.01448	1.01992	1.02493	1.02992	1.03489	1.03983	1.04475	1.04964	1.05451	1.05936	1.06419	1.06900	1.07379	1.07855	1.08329	1.10671	1.12965	1.15214	1.17420	1.19585	1.21713	1.23804
2	1.01964	1.02475	1.02994	1.03490	1.03984	1.04483	1.04984	1.05486	1.05983	1.06477	1.06966	1.07454	1.07939	1.08423	1.08904	1.09383	1.11747	1.14046	1.16334	1.18561	1.20748	1.22896	1.25004
3	1.02946	1.03462	1.03975	1.04466	1.04955	1.05451	1.05948	1.06446	1.06939	1.07432	1.07926	1.08419	1.08909	1.09397	1.09882	1.10363	1.12733	1.15032	1.17311	1.19573	1.21819	1.24040	1.26232
4	1.03927	1.04448	1.04967	1.05482	1.05996	1.06507	1.07015	1.07522	1.08025	1.08527	1.09026	1.09523	1.10018	1.10510	1.11001	1.11489	1.13869	1.16162	1.18434	1.20684	1.22912	1.25115	1.27301
5	1.04909	1.05434	1.05958	1.06479	1.06997	1.07513	1.08026	1.08537	1.09043	1.09546	1.10046	1.10543	1.11037	1.11528	1.12016	1.12502	1.14882	1.17175	1.19444	1.21691	1.23915	1.26115	1.28299
6	1.05890	1.06421	1.06949	1.07474	1.07997	1.08518	1.09036	1.09552	1.10065	1.10576	1.11085	1.11591	1.12095	1.12597	1.13097	1.13594	1.16000	1.18315	1.20608	1.22879	1.25126	1.27349	1.29557
7	1.06871	1.07407	1.07940	1.08470	1.08998	1.09523	1.10046	1.10567	1.11085	1.11601	1.12114	1.12625	1.13134	1.13640	1.14145	1.14647	1.17083	1.19438	1.21771	1.24082	1.26371	1.28637	1.30889
8	1.07852	1.08392	1.08930	1.09466	1.09998	1.10529	1.11058	1.11585	1.12109	1.12629	1.13146	1.13661	1.14172	1.14681	1.15187	1.15690	1.18146	1.20431	1.22694	1.24935	1.27154	1.29351	1.31534
9	1.08833	1.09376	1.09921	1.10461	1.10999	1.11534	1.12066	1.12596	1.13124	1.13649	1.14172	1.14692	1.15210	1.15726	1.16240	1.16751	1.19228	1.21444	1.23639	1.25812	1.27963	1.30092	1.32209
10	1.09813	1.10363	1.10911	1.11456	1.11999	1.12539	1.13076	1.13611	1.14143	1.14673	1.15201	1.15726	1.16248	1.16769	1.17287	1.17803	1.20290	1.22426	1.24541	1.26634	1.28705	1.30754	1.32791
11	1.10793	1.11349	1.11901	1.12451	1.12999	1.13548	1.14088	1.14625	1.15163	1.15697	1.16229	1.16759	1.17286	1.17811	1.18334	1.18855	1.21362	1.23428	1.25473	1.27496	1.29497	1.31476	1.33443
12	1.11774	1.12334	1.12891	1.13446	1.13998	1.14548	1.15095	1.15639	1.16181	1.16720	1.17257	1.17792	1.18324	1.18854	1.19381	1.19906	1.22434	1.24520	1.26585	1.28628	1.30649	1.32648	1.34625
13	1.12754	1.13319	1.13881	1.14441	1.14998	1.15552	1.16104	1.16653	1.17200	1.17744	1.18286	1.18825	1.19361	1.19896	1.20428	1.20958	1.23496	1.25602	1.27687	1.29750	1.31791	1.33811	1.35819
14	1.13734	1.14304	1.14871	1.15436	1.15997	1.16552	1.17113	1.17667	1.18218	1.18767	1.19314	1.19857	1.20399	1.20938	1.21474	1.22008	1.24556	1.26682	1.28787	1.30871	1.32934	1.34976	1.36996
15	1.14713	1.15288	1.15861	1.16430	1.16997	1.17561	1.18122	1.18681	1.19237	1.19790	1.20341	1.20890	1.21436	1.21980	1.22521	1.23060	1.25618	1.27774	1.29909	1.32023	1.34116	1.36188	1.38239
20	1.19610	1.20209	1.20806	1.21400	1.21991	1.22579	1.23164	1.23747	1.24326	1.24904	1.25478	1.26050	1.26620	1.27186	1.27751	1.28313	1.30882	1.33068	1.35231	1.37373	1.39494	1.41595	1.43676
25	1.24500	1.25127	1.25744	1.26366	1.26981	1.27593	1.28202	1.28809	1.29412	1.30013	1.30611	1.31207	1.31799	1.32389	1.32977	1.33562	1.36150	1.38366	1.40560	1.42732	1.44884	1.47016	1.49128
30	1.29392	1.30041	1.30686	1.31329	1.31968	1.32604	1.33237	1.33867	1.34495	1.35119	1.35740	1.36359	1.36975	1.37588	1.38199	1.38807	1.41406	1.43642	1.45865	1.48076	1.50266	1.52435	1.54584
35	1.34278	1.34951	1.35621	1.36288	1.36951	1.37611	1.38268	1.38922	1.39573	1.40221	1.40866	1.41508	1.42148	1.42786	1.43421	1.44054	1.46674	1.48930	1.51173	1.53403	1.55611	1.57798	1.60000
40	1.39161	1.39859	1.40553	1.41244	1.41931	1.42615	1.43296	1.43974	1.44649	1.45320	1.45989	1.46654	1.47317	1.47976	1.48633	1.49287	1.51926	1.54192	1.56445	1.58685	1.60912	1.63126	1.65326
45	1.44041	1.44763	1.45482	1.46197	1.46908	1.47616	1.48321	1.49023	1.49721	1.50416	1.51104	1.51797	1.52482	1.53165	1.53845	1.54521	1.57180	1.59466	1.61739	1.63999	1.66246	1.68480	1.70699
50	1.48918	1.49664	1.50407	1.51146	1.51882	1.52614	1.53343	1.54068	1.54790	1.55509	1.56224	1.56936	1.57645	1.58351	1.59053	1.59751	1.62430	1.64738	1.67034	1.69318	1.71589	1.73847	1.76091

Appendix 3.7.52 GNP Per Capita and Average Passenger Fare by Country

No.	Name of Countries	Data Year	GNP		Avg Pass Fare		Relative Ratio of Avg Pass Fare to GNP	Adjusted *1)	
			per capita (in 1992 US\$)	Ratio to Egypt (Egypt=1.000)	(Pass. rev Fkn) (in 1992 US\$)	Ratio to Egypt (Egypt=1.000)		Avg Pass Fare (Pass. rev/Fkn)	Ratio to Egypt (Egypt=1.000)
1	Egypt	1992/93	640	1.000	0.0018	1.000	1.000	0.0018	1.000
2	South Korea	1991	6,790	10.609	0.0026	1.417	0.134	0.0195	10.609
3	Sri Lanka	1992	540	0.844	0.0040	2.180	2.584	0.0015	0.844
4	Belarus	1992	2,930	4.578	0.0050	2.725	0.595	0.0084	4.578
5	Iran	1992	2,200	3.438	0.0060	3.270	0.951	0.0063	3.438
6	Uganda	1992	170	0.266	0.0060	3.270	12.310	0.0005	0.266
7	Romania	1992	1,130	1.766	0.0060	3.270	1.852	0.0032	1.766
8	Latvia	1992	1,930	3.016	0.0060	3.270	1.084	0.0055	3.016
9	Bangladesh	1991/92	220	0.344	0.0060	3.270	9.512	0.0006	0.344
10	India	1992	310	0.484	0.0060	3.270	6.750	0.0009	0.484
11	Ghana	1990	450	0.703	0.0070	3.815	5.425	0.0013	0.703
12	Poland	1992	1,910	2.984	0.0070	3.815	1.278	0.0055	2.984
13	Indonesia	1992/93	1,905	2.977	0.0070	3.815	1.282	0.0055	2.977
14	China	1991	470	0.734	0.0090	4.905	6.679	0.0013	0.734
15	Mexico	1992	3,470	5.422	0.0090	4.905	0.905	0.0099	5.422
16	Estonia	1992	2,760	4.313	0.0100	5.450	1.264	0.0079	4.313
17	Pakistan	1987	420	0.656	0.0100	5.450	8.304	0.0012	0.656
18	Thailand	1991	1,840	2.875	0.0100	5.450	1.896	0.0053	2.875
19	Nigeria	1991	320	0.500	0.0110	5.995	11.989	0.0009	0.500
20	Bulgaria	1992	1,330	2.078	0.0110	5.995	2.885	0.0038	2.078
21	Costa Rica	1991	1,960	3.063	0.0110	5.995	1.957	0.0056	3.063
22	Hungary	1992	2,970	4.641	0.0130	7.084	1.527	0.0085	4.641
23	Zimbabwe	1992	570	0.891	0.0140	7.629	8.566	0.0016	0.891
24	Kenya	1991	310	0.484	0.0150	8.174	16.876	0.0009	0.484
25	Turkey	1992	1,980	3.094	0.0150	8.174	2.642	0.0057	3.094
26	Uruguay	1992	3,340	5.219	0.0150	8.174	1.566	0.0096	5.219
27	Malaysia	1992	2,790	4.359	0.0160	8.719	2.000	0.0080	4.359
28	Chile	1991	2,730	4.266	0.0160	8.719	2.041	0.0078	4.266
29	Brazil-RFTSA	1991	2,770	4.328	0.0170	9.264	2.140	0.0079	4.328
30	Colombia	1990	1,330	2.078	0.0170	9.264	4.458	0.0038	2.078
31	Peru	1991	950	1.484	0.0170	9.264	6.241	0.0027	1.484
32	Algeria	1992	1,840	2.875	0.0190	10.354	3.601	0.0053	2.875
33	Morocco	1992	1,030	1.609	0.0200	10.899	6.772	0.0030	1.609
34	Ethiopia	1991	110	0.172	0.0200	10.899	53.413	0.0003	0.172
35	Brazil-FEPAZA	1992	2,770	4.328	0.0210	11.444	2.641	0.0079	4.328
36	Tunisia	1991	1,720	2.688	0.0220	11.989	4.461	0.0049	2.688
37	Greece	1992	7,290	11.391	0.0220	11.989	1.053	0.0209	11.391
38	Portugal	1992	7,450	11.641	0.0220	11.989	1.030	0.0214	11.641
39	Malawi	1992	210	0.328	0.0240	13.079	39.860	0.0006	0.328
40	Cameroon	1992	820	1.281	0.0340	18.529	14.461	0.0024	1.281
41	Senegal	1992	780	1.219	0.0340	18.529	15.203	0.0022	1.219
42	Bolivia	1992	680	1.063	0.0360	19.619	18.464	0.0019	1.063
43	Cote D'Ivoire	1992	670	1.047	0.0380	20.708	19.781	0.0019	1.047
44	Mali	1992	310	0.484	0.0440	23.978	49.503	0.0009	0.484
45	South Africa	1992	2,670	4.172	0.0460	25.068	6.009	0.0077	4.172
46	Italy	1992	20,300	31.719	0.0470	25.613	0.808	0.0582	31.719
47	Congo-CRCCO	1992	1,030	1.609	0.0540	29.428	18.285	0.0030	1.609
48	Spain	1992	13,970	21.828	0.0570	31.063	1.423	0.0401	21.828
49	Austria	1992	22,380	34.969	0.0590	32.153	0.919	0.0642	34.969
50	Netherlands	1992	20,480	32.000	0.0600	32.698	1.022	0.0587	32.000
51	Belgium	1992	20,880	32.625	0.0620	33.787	1.036	0.0599	32.625
52	France	1992	22,260	34.781	0.0760	41.417	1.191	0.0638	34.781
53	Gabon	1992	4,450	6.953	0.0840	45.777	6.584	0.0128	6.953
54	Germany DB	1992	23,030	35.984	0.0870	48.501	1.348	0.0660	35.984
55	Denmark	1992	26,000	40.625	0.0920	50.136	1.234	0.0745	40.625
56	Finland	1992	21,970	34.328	0.0930	51.771	1.508	0.0630	34.328
57	Canada Via Rail	1992	20,710	32.359	0.0960	52.316	1.617	0.0594	32.359
58	Australia SRA NSW	1990	17,260	26.969	0.1080	58.856	2.182	0.0495	26.969
59	Japan	1992	28,190	44.047	0.1090	59.401	1.340	0.0808	44.047
60	Great Britain	1992	17,790	27.797	0.1190	64.850	2.333	0.0510	27.797
61	USA-Amtrak	1992	23,240	36.313	0.1220	66.485	1.831	0.0666	36.313
62	Sweden	1992	27,010	42.203	0.1580	86.104	2.040	0.0774	42.203
63	Ireland	1992	12,210	19.078	0.1660	90.463	4.742	0.0350	19.078

Source: Railway Gazette, 1995

Note: *1) is calculated by a formula: (Average Pass. Fare)/(Relative Ratio of Pass. Fare to GNP)

Appendix 3.7.53 GNP Per Capita and Average Passenger Fare in PPP by Country

No.	Name of Countries	FFP GNP		Avg. Pass Fare		Relative Ratio		Adjusted *1)	
		per capita (1992 int'l \$)	Ratio to Egypt (Egypt=1.000)	(Pass. rev./Pkon) (FFP. in int'l \$)	Ratio to Egypt (Egypt=1.000)	of Avg. Pass. Fare to GNP	Avg. Pass Fare (Pass. rev./Pkon)	Ratio to Egypt (Egypt=1.000)	
1	Egypt	3,670	1.000	0.010	1.000	1.000	0.010	1.000	
2	Belarus	6,840	1.864	0.012	1.200	0.644	0.019	1.864	
3	Indonesia	2,970	0.809	0.012	1.200	1.483	0.008	0.809	
4	Iran	5,289	1.439	0.015	1.500	1.043	0.014	1.439	
5	Roumania	2,750	0.749	0.016	1.600	2.135	0.007	0.749	
6	Latvia	4,690	1.278	0.016	1.600	1.252	0.013	1.278	
7	Poland	4,880	1.330	0.019	1.900	1.429	0.013	1.330	
8	Mexico	7,490	2.041	0.020	2.000	0.980	0.020	2.041	
9	Estonia	6,320	1.722	0.022	2.200	1.278	0.017	1.722	
10	Sri Lanka	2,810	0.766	0.022	2.200	2.873	0.008	0.766	
11	Hungary	5,740	1.564	0.025	2.500	1.598	0.016	1.564	
12	India	1,210	0.330	0.025	2.500	7.583	0.003	0.330	
13	Greece	8,010	2.183	0.025	2.500	1.145	0.022	2.183	
14	Costa Rica	5,550	1.512	0.030	3.000	1.984	0.015	1.512	
15	Portugal	10,120	2.757	0.030	3.000	1.088	0.028	2.757	
16	Ghana	1,890	0.515	0.031	3.100	6.020	0.005	0.515	
17	Thailand	5,890	1.605	0.031	3.100	1.932	0.016	1.605	
18	Brazil-RFFSA	5,250	1.431	0.032	3.200	2.237	0.014	1.431	
19	Uruguay	7,450	2.030	0.033	3.300	1.626	0.020	2.030	
20	China	1,910	0.520	0.035	3.500	6.725	0.005	0.520	
21	South Korea	8,950	2.439	0.035	3.500	1.435	0.024	2.439	
22	Bangladesh	1,230	0.335	0.036	3.600	10.741	0.003	0.335	
23	Turkey	5,170	1.409	0.039	3.900	2.768	0.014	1.409	
24	Uganda	1,070	0.292	0.040	4.000	13.720	0.003	0.292	
25	Brazil-FEPAZA	5,250	1.431	0.040	4.000	2.796	0.014	1.431	
26	Bulgaria	5,130	1.398	0.041	4.100	2.933	0.014	1.398	
27	Italy	17,730	4.831	0.041	4.100	0.849	0.048	4.831	
28	Malaysia	8,050	2.193	0.046	4.600	2.097	0.022	2.193	
29	Chile	8,090	2.204	0.047	4.700	2.132	0.022	2.204	
30	Nigeria	1,440	0.392	0.048	4.800	12.233	0.004	0.392	
31	Zimbabwe	1,970	0.537	0.048	4.800	8.942	0.005	0.537	
32	Austria	18,350	5.000	0.048	4.800	0.960	0.050	5.000	
33	Pakistan	2,130	0.580	0.049	4.900	8.443	0.006	0.580	
34	Netherlands	17,560	4.785	0.051	5.100	1.066	0.048	4.785	
35	Spain	13,170	3.589	0.053	5.300	1.477	0.036	3.589	
36	Belgium	18,160	4.948	0.054	5.400	1.091	0.049	4.948	
37	Peru	3,080	0.839	0.055	5.500	6.554	0.008	0.839	
38	Algeria	5,740	1.564	0.060	6.000	3.836	0.016	1.564	
39	Ethiopia	340	0.093	0.063	6.300	68.003	0.001	0.093	
40	Morocco	3,270	0.891	0.064	6.400	7.183	0.009	0.891	
41	France	19,200	5.232	0.065	6.500	1.242	0.052	5.232	
42	Kenya	1,360	0.371	0.066	6.600	17.810	0.004	0.371	
43	Denmark	18,650	5.082	0.066	6.600	1.299	0.051	5.082	
44	Tunisia	5,130	1.398	0.067	6.700	4.793	0.014	1.398	
45	Finland	15,970	4.351	0.069	6.900	1.586	0.044	4.351	
46	Mali	500	0.136	0.071	7.100	52.114	0.001	0.136	
47	Colombia	5,760	1.569	0.074	7.400	4.715	0.016	1.569	
48	Senegal	1,750	0.477	0.077	7.700	16.148	0.005	0.477	
49	Japan	20,160	5.493	0.078	7.800	1.420	0.055	5.493	
50	Germany DB	20,610	5.616	0.079	7.900	1.407	0.056	5.616	
51	Malawi	730	0.199	0.082	8.200	41.225	0.002	0.199	
52	Canada Via Rail	19,720	5.373	0.092	9.200	1.712	0.054	5.373	
53	Cote D'Ivoire	1,640	0.447	0.094	9.400	21.035	0.004	0.447	
54	Cameroon	2,300	0.627	0.096	9.600	15.318	0.006	0.627	
55	Sweden	17,610	4.798	0.103	10.300	2.147	0.048	4.798	
56	Australia SRA NSW	17,350	4.728	0.109	10.900	2.306	0.047	4.728	
57	Great Britain	16,730	4.559	0.112	11.200	2.457	0.046	4.559	
58	Bolivia	2,270	0.619	0.121	12.100	19.563	0.006	0.619	
59	USA Amtrak	23,120	6.300	0.121	12.100	1.921	0.063	6.300	
60	Congo CFCCO	2,450	0.668	0.130	13.000	19.473	0.007	0.668	
61	Ireland	12,170	3.316	0.164	16.400	4.946	0.033	3.316	

Source: Railway Gazette, 1995

Note: *1) is calculated by a formula: (Average Pass. Fare)/(Relative Ratio of Pass. Fare to GNP in PPP)

Appendix 3.7.54 GNP Per Capita and Average Freight Fare by Country

No.	Name of Countries	GNP per capita (in 1992 US\$)	Ratio to Egypt (Egypt=1.000)	Avg. Freight Fare (Frt. rev./tkm) (in 1992 US\$)	Ratio to Egypt (Egypt=1.000)	Relative Ratio of Avg. Frt. Fare to GNP	Adjusted *1) Avg. Freight Fare (Frt rev./tkm)	Ratio to Egypt (Egypt=1.000)
1	China	470	0.734	0.0006	0.006	0.009	0.0067	0.734
2	Egypt	640	1.000	0.0092	1.000	1.000	0.0092	1.000
3	Belarus	2,930	4.578	0.0100	1.093	0.239	0.0419	4.578
4	Latvia	1,930	3.016	0.0100	1.093	0.362	0.0276	3.016
5	USA: Burlington Northern	23,240	36.313	0.0100	1.093	0.030	0.3323	36.313
6	USA: Denver & Rio Grande	23,240	36.313	0.0100	1.093	0.030	0.3323	36.313
7	Jordan	1,120	1.750	0.0200	2.185	1.249	0.0160	1.750
8	South Africa	2,670	4.172	0.0200	2.185	0.524	0.0382	4.172
9	Zimbabwe	570	0.891	0.0200	2.185	2.454	0.0082	0.891
10	Poland	1,910	2.984	0.0200	2.185	0.732	0.0273	2.984
11	Turkey	1,980	3.094	0.0200	2.185	0.706	0.0283	3.094
12	Estonia	2,760	4.313	0.0200	2.185	0.507	0.0395	4.313
13	India	310	0.484	0.0200	2.185	4.512	0.0044	0.484
14	Indonesia	1,905	2.977	0.0200	2.185	0.734	0.0272	2.977
15	Malasia	2,790	4.359	0.0200	2.185	0.501	0.0399	4.359
16	Thailand	1,840	2.875	0.0200	2.185	0.760	0.0263	2.875
17	Brazil-RFFSA	2,770	4.328	0.0200	2.185	0.505	0.0396	4.328
18	Canada: Canadian Pacific	20,710	32.359	0.0200	2.185	0.068	0.2962	32.359
19	USA: Florida East Coast	23,240	36.313	0.0200	2.185	0.060	0.3323	36.313
20	USA: All Class Railways	23,240	36.313	0.0200	2.185	0.060	0.3323	36.313
21	Iran	2,200	3.438	0.0300	3.278	0.954	0.0315	3.438
22	Morocco	1,030	1.609	0.0300	3.278	2.037	0.0147	1.609
23	Tunisia	1,720	2.688	0.0300	3.278	1.220	0.0246	2.688
24	Bulgaria	1,330	2.078	0.0300	3.278	1.577	0.0190	2.078
25	Romania	1,130	1.766	0.0300	3.278	1.857	0.0162	1.766
26	Pakistan	420	0.656	0.0300	3.278	4.995	0.0060	0.656
27	Sri Lanka	540	0.844	0.0300	3.278	3.885	0.0077	0.844
28	South Korea	6,790	10.609	0.0300	3.278	0.309	0.0971	10.609
29	Chile	2,730	4.266	0.0300	3.278	0.768	0.0390	4.266
30	Colombia	1,330	2.078	0.0300	3.278	1.577	0.0190	2.078
31	Mexico	3,470	5.422	0.0300	3.278	0.605	0.0496	5.422
32	Uruguay	3,340	5.219	0.0300	3.278	0.628	0.0478	5.219
33	Portugal	7,450	11.641	0.0300	3.278	0.282	0.1065	11.641
34	Sweden	27,010	42.203	0.0300	3.278	0.078	0.3862	42.203
35	Australia: ANR	17,150	26.969	0.0300	3.278	0.122	0.2468	26.969
36	USA: Conrail	23,240	36.313	0.0300	3.278	0.090	0.3323	36.313
37	Algeria	1,840	2.875	0.0400	4.371	1.520	0.0263	2.875
38	Ghana	450	0.703	0.0400	4.371	6.216	0.0064	0.703
39	Kenya	310	0.484	0.0400	4.371	9.023	0.0044	0.484
40	Brazil: FEPASA	2,770	4.328	0.0400	4.371	1.010	0.0396	4.328
41	Peru	950	1.484	0.0400	4.371	2.944	0.0136	1.484
42	Hungary	2,970	4.641	0.0500	5.463	1.177	0.0425	4.641
43	Bangladesh	220	0.344	0.0500	5.463	15.893	0.0031	0.344
44	Belgium	20,880	32.625	0.0500	5.463	0.167	0.2986	32.625
45	Italy	20,460	31.969	0.0500	5.463	0.171	0.2926	31.969
46	Japan	28,190	44.047	0.0500	5.463	0.124	0.4031	44.047
47	Netherlands	20,480	32.000	0.0500	5.463	0.171	0.2929	32.000
48	Spain	13,970	21.828	0.0500	5.463	0.250	0.1998	21.828
49	Australia: SRA NSW	17,260	26.969	0.0500	5.463	0.203	0.2468	26.969
50	Ethiopia	110	0.172	0.0600	6.556	38.144	0.0016	0.172
51	Nigeria	320	0.500	0.0600	6.556	13.112	0.0046	0.500
52	Finland	21,970	34.328	0.0600	6.556	0.191	0.3142	34.328
53	France	22,260	34.781	0.0600	6.556	0.188	0.3183	34.781
54	Ireland	12,210	19.078	0.0600	6.556	0.344	0.1746	19.078
55	Cote D'Ivoire	670	1.047	0.0700	7.649	7.306	0.0096	1.047
56	Malawi	210	0.328	0.0700	7.649	23.310	0.0030	0.328
57	Mali	310	0.484	0.0700	7.649	15.791	0.0044	0.484
58	Senegal	780	1.219	0.0700	7.649	6.276	0.0112	1.219
59	Uganda	170	0.266	0.0700	7.649	28.795	0.0024	0.266
60	Austria	22,380	34.969	0.0700	7.649	0.219	0.3200	34.969
61	Greece	7,290	11.391	0.0700	7.649	0.671	0.1042	11.391
62	Cameroun	820	1.281	0.0800	8.741	6.822	0.0117	1.281
63	Great Britain	17,790	27.797	0.0800	8.741	0.314	0.2541	27.797
64	Bolivia	680	1.063	0.0900	9.834	9.255	0.0097	1.063
65	Costa Rica	1,960	3.063	0.0900	9.834	3.211	0.0280	3.063
66	Denmark	26,000	40.625	0.0900	9.834	0.242	0.3718	40.625
67	New Zealand	12,300	19.219	0.0900	9.834	0.512	0.1759	19.219
68	Germany: DB	23,030	35.984	0.1000	10.927	0.304	0.3293	35.984
69	Congo: CFCO	1,030	1.609	0.1300	14.205	8.826	0.0147	1.609
70	Gabon	4,450	6.953	0.1300	14.205	2.043	0.0636	6.953

Source: Railway Gazette, 1995

Note: *1) is calculated by a formula: (Average Frt. Fare)/(Relative Ratio of Frt. Fare to GNP)

Appendix 3.7.55 Average Freight Fare in PPP by Country

No.	Name of Countries	PPP GNP per capita (in 1992 int'l \$)	Ratio to Egypt (Egypt=1.000)	Avg. Freight Fare (Frt. rev./Tkm) (PPP, in int'l \$)	Ratio to Egypt (Egypt=1.000)	Relative Ratio of Avg. Frt. Fare to GNP	Adjusted *1) Avg. Freight Fare (Frt. rev./Tkm)	Ratio to Egypt (Egypt=1.000)
1	USA-Burlington Northern	23,120	6.300	0.014	0.255	0.040	0.346	6.300
2	USA-Denver & Rio Grande	23,120	6.300	0.014	0.255	0.040	0.346	6.300
3	Canada-Canadian Pacific	19,720	5.373	0.019	0.345	0.064	0.296	5.373
4	USA-All Class Railways	23,120	6.300	0.019	0.345	0.055	0.346	6.300
5	Sweden	17,610	4.798	0.020	0.364	0.076	0.264	4.798
6	USA-Florida East Coast	23,120	6.300	0.024	0.436	0.069	0.346	6.300
7	China	1,910	0.520	0.026	0.473	0.908	0.029	0.520
8	USA-Conrail	23,120	6.300	0.027	0.491	0.078	0.346	6.300
9	Indonesia	2,970	0.809	0.028	0.509	0.629	0.045	0.809
10	Australia-ANR	17,350	4.728	0.028	0.509	0.108	0.260	4.728
11	Latvia	4,690	1.278	0.029	0.527	0.413	0.070	1.278
12	Belarus	6,840	1.864	0.030	0.545	0.293	0.103	1.864
13	South Korea	8,950	2.439	0.037	0.673	0.276	0.134	2.439
14	Japan	20,160	5.493	0.037	0.673	0.122	0.302	5.493
15	Netherlands	17,560	4.785	0.039	0.709	0.148	0.263	4.785
16	Portugal	10,120	2.757	0.039	0.709	0.257	0.152	2.757
17	Estonia	6,320	1.722	0.042	0.764	0.443	0.055	1.722
18	Italy	17,730	4.831	0.043	0.782	0.162	0.266	4.831
19	Belgium	18,160	4.948	0.044	0.800	0.162	0.272	4.948
20	Finland	15,970	4.351	0.046	0.836	0.192	0.239	4.351
21	Australia-SRA NSW	17,350	4.728	0.046	0.836	0.177	0.260	4.728
22	Brazil-RFFSA	5,250	1.431	0.047	0.855	0.597	0.079	1.431
23	Poland	4,880	1.330	0.049	0.891	0.670	0.073	1.330
24	Spain	13,170	3.589	0.049	0.891	0.248	0.197	3.589
25	Iceland	5,890	1.605	0.051	0.927	0.578	0.088	1.605
26	Egypt	3,670	1.000	0.055	1.000	1.000	0.055	1.000
27	France	19,200	5.232	0.055	1.000	0.191	0.288	5.232
28	Ireland	12,170	3.316	0.057	1.036	0.313	0.182	3.316
29	Turkey	5,170	1.409	0.059	1.073	0.761	0.077	1.409
30	Jordan	4,220	1.150	0.060	1.091	0.949	0.063	1.150
31	Austria	18,350	5.000	0.061	1.109	0.222	0.275	5.000
32	Malaysia	8,050	2.193	0.062	1.127	0.514	0.121	2.193
33	Mexico	7,490	2.041	0.062	1.127	0.552	0.112	2.041
34	Iran	5,280	1.439	0.064	1.161	0.809	0.079	1.439
35	Brazil-FEPAZA	5,250	1.431	0.067	1.218	0.852	0.079	1.431
36	Denmark	18,650	5.082	0.067	1.218	0.240	0.279	5.082
37	Uruguay	7,450	2.030	0.071	1.291	0.636	0.112	2.030
38	Great Britain	16,730	4.559	0.074	1.345	0.295	0.251	4.559
39	Greece	8,010	2.183	0.076	1.382	0.633	0.120	2.183
40	India	1,210	0.330	0.079	1.436	4.357	0.018	0.330
41	Morocco	3,270	0.891	0.081	1.473	1.653	0.049	0.891
42	Zimbabwe	1,970	0.537	0.081	1.473	2.741	0.030	0.537
43	Romania	2,750	0.749	0.081	1.473	1.965	0.041	0.749
44	Tunisia	5,130	1.398	0.083	1.509	1.080	0.077	1.398
45	Germany-DB	20,610	5.616	0.085	1.545	0.275	0.309	5.616
46	Chile	8,090	2.204	0.089	1.618	0.734	0.121	2.204
47	Hungary	5,740	1.564	0.093	1.691	1.081	0.086	1.564
48	New Zealand	14,400	3.924	0.103	1.873	0.477	0.216	3.924
49	Mali	500	0.136	0.107	1.945	14.280	0.007	0.136
50	Algeria	5,740	1.564	0.113	2.055	1.314	0.086	1.564
51	Bulgaria	5,130	1.398	0.115	2.091	1.496	0.077	1.398
52	Peru	3,080	0.839	0.118	2.145	2.556	0.046	0.839
53	Colombia	5,760	1.569	0.139	2.527	1.610	0.086	1.569
54	Pakistan	2,130	0.580	0.141	2.564	4.417	0.032	0.580
55	Senegal	1,750	0.477	0.146	2.655	5.567	0.026	0.477
56	Ghana	1,890	0.515	0.166	3.018	5.861	0.028	0.515
57	Sri Lanka	2,810	0.766	0.167	3.036	3.966	0.042	0.766
58	Cote D'Ivoire	1,640	0.447	0.170	3.091	6.917	0.025	0.447
59	Kenya	1,360	0.371	0.183	3.327	8.979	0.020	0.371
60	Ethiopia	340	0.093	0.198	3.600	38.859	0.005	0.093
61	Cameroon	2,300	0.627	0.216	3.927	6.267	0.034	0.627
62	Malawi	730	0.199	0.234	4.255	21.389	0.011	0.199
63	Costa Rica	5,550	1.512	0.242	4.400	2.910	0.083	1.512
64	Nigeria	1,440	0.392	0.255	4.636	11.816	0.022	0.392
65	Bangladesh	1,230	0.335	0.263	4.782	14.268	0.018	0.335
66	Bolivia	2,270	0.619	0.289	5.255	8.495	0.034	0.619
67	Congo-CHCO	2,450	0.668	0.300	5.455	8.171	0.037	0.668
68	Uganda	1,070	0.292	0.444	8.073	27.689	0.016	0.292

Source: Railway Gazette, 1995

Note: *1) is calculated by a formula: (Average Freight Fare in PPP)/(Relative Ratio of Freight Fare to GNP in PPP)

Appendix 3.9.6 Cost Recovery Ratio

3.9.6. (1) Assumption of Estimation of Cost Recovery Ratio

Cost recovery ratios are estimated by following assumptions.

1. Cost

ENR expenses are divided into 4 categories: Maintenance for Track & Building, Maintenance for Machine, tool & Rolling stock, Train & Rolling stock Operating and Others. To estimate the expenses of each line, these expenses after analyzing are allocated into each line as follows.

(1) Track and Building

Track and Building expenses are divided into Fixed cost and Variable cost, Fixed cost is in proportion to track length, Variable cost is in proportion to train running kilometer of both passenger and freight. For the line maintained by mechanical maintenance, peculiar costs are added for both Fixed and Variable cost.

(2) Operation cost

Maintenance for Machine, tool & Rolling stock and Train & Rolling stock Operating cost are mostly related to the train operation. These costs consist of cost of freight train operation and passenger train operation. Therefore, these costs are allocated to each line in proportion to the train running kilometer of passenger train and freight train km.

(3) Characteristics of each line on the expense

A characteristic of each line is difference each other. So each line is graded with situation of train formation and loading weight. Passenger train km and freight train kilometer are adjusted with this assumed grade.

(4) Depreciation cost

Depreciation cost consists of infrastructure and rolling stock etc. Infrastructures are as Fixed cost and rolling stock are Variable cost. Fixed costs are allocated to the track length of each line with grade above. Variable costs are also allocated to the train running km of each line with grade.

2. Revenues

(1) Passenger revenue (by normal, season and kilometer)

Passenger revenue of each line is estimated by passenger-km of each line. The revenue per passenger-km is adjusted by the characteristics of each line. Namely, revenue/passenger-km of main line, Branch line and Suburban line are difference.

Cairo - Alex. Line and Cairo - Aswan line consider the running of special trains, such as turbo train and sleeper train etc.

(2) Passenger revenue (by conductor)

Revenue by conductor of each line is estimated in proportion of the amount of (1) of each line.

(3) Passenger revenue (other)

Other passenger revenue of each line is estimated in proportion to the passenger-km of each line considering line peculiarity such as handling of luggages or not

(4) Freight revenue

Freight revenue of each line estimated by freight train-km of each line with grade of line which is loading situation.

(5) Other miscellaneous revenue

Other miscellaneous revenue of each line is estimated in proportion to the total of revenue above.

**Appendix 3.9.6 (2) Actual Expenses and Allocation
Maintenance Expenses for Tracks and Building**

Code	Description	Chapter 1	Chapter 2	Total
100	Presidency current expenses	7,149,866	108,598,099	115,747,965
110	Track Maintenance expenses	29,716,431	12,311,848	42,028,279
111	Bridges maintenance expenses	116,698	24,190	140,888
112	Passages maintenance expenses	254,893	-60,067	194,826
113	Maintenance expenses for damages caused by accidents	717,358	697,231	1,414,589
114	Flood protection expenses	102,840	1,094	103,844
120	German maintenance & repair	5,534,839	6,260,853	11,795,692
121	Wood roofing building	104,985	15,114	120,099
122	Maintenance expenses for platform and fence	25,710	1,350,256	1,375,966
123	Improving public structure	20,814	27,548	48,362
130	Metal bridges maintenance & repairs	3,721,422	74,752	3,796,174
131	Bridges and parthes maintenance and repairs	23,606	8,553	32,159
132	Passenger bridges maintenance and repairs	17	4,306	4,323
134	Upper sheds maintenance and repair	249,064	-112,413	136,651
135	Concrete & metal roofing maintenance and repair	17,335	2,747	20,082
140	Track maintenance tools maintenance & repair	345,460	-79,724	265,736
141	Department Devices maintenance & repair	337,197	-19,753	317,444
142	Mechanical Signals maintenances & repairs	4,771,323	599,610	5,370,933
143	Electrical Signals maintenance & repair	3,094,370	1,773,616	4,868,186
144	On-line & wireless communication maintenance & repair	555,875	498,954	1,054,829
170	Maintenance & repairing tracks at Aluminum complex	23,128	724	23,852
	1st item Total	56,883,231	131,977,648	188,860,879
		0.111	0.268	0.161
	Total (exclud. presidency)	49,733,365	23,379,549	73,112,914

Presidency & Other expenses

Description	Chapter 1	Chapter 2	Total
400 Presidency current expenses	21,775,210	16,025,499	37,800,709
410 Medical affairs authority expenses	689,503	53,831	743,334
411 Cairo Hospital expenses	2,094,568	5,774,808	7,869,376
413 expenses	14,460	19,598	33,058
414 Tanat Hospital expenses	160,136	129,643	289,779
415 Abu Zaabel Hospital expenses	258,138	34,766	292,904
420 Printing authority expenses	2,499,211	1,317,668	3,816,879
423 Transportation police expenses	329,255	3,407,157	3,736,412
Total	27,820,481	26,761,970	54,582,451
Maintenance for track & bridge	56,883,231	131,977,648	188,860,879
Maintenance for machines, tools & rolling stock	45,059,822	377,843,913	422,903,735
Train & Rolling stock operation	168,739,462	189,939,496	358,678,958
Other expenses	27,820,481	26,761,970	54,582,451
Total	298,502,996	726,523,027	1,025,026,023
	(wage)		
100 Presidency current expenses	7,149,866	108,598,099	115,747,965
200 Presidency current expenses	8,784,964	282,829,589	291,614,553
300 Presidency current expenses	21,877,814	897,774	22,775,588
400 Presidency current expenses	21,775,210	16,025,499	37,800,709
Total	59,587,854	408,350,961	467,938,815

557,087,208

Infrastructure 73,112,914
 Rolling stock 67,064,405
 Train operation 335,903,370

Depreciation Cost 476,081 / 1025,026 = 380,200
 Ratio of Over head/common cost 0.738
 0.262

Maintenance Expenses for Mashines, Tools & Rolling stock

Description	Chapter 1		Chapter 2		Total	Passenger cost		Freight cost		Cairo - Alex. Psg.		Cairo - Aswan Psg.	
	8,784,964	282,829,589	21,254,186	13,085,859		291,614,563	Wage	Material	Wage	Material	Wage	Material	Wage
200 Presidency current expenses													
Electrical units maintenance & repairs	318,358		21,254,186		21,572,544								
Diesel locomotives maintenance & repairs	5,567,173		13,085,859		18,653,032	4,175,390	9,814,394	1,391,793	3,271,465				
Diesel loco. unit maintenance & repairs	1,907,690		3,957,824		5,865,504	1,907,690	3,957,824						
Torbini maintenance & repair	135				135					135			
Passenger coaches maintenance & repair	9,484,595		27,808,314		37,292,909	9,484,595	27,808,314						
Sleeping coaches maintenance & repairs	1,162,329		1,757,096		2,919,425							1,162,329	1,757,096
Dining coaches maintenance & repairs	3,338		-491		2,847							3,338	-491
Freight wagons maintenance & repairs	10,219,769		12,092,200		22,311,969			10,219,769	12,092,200				
Deisel manoeuvres locomotives maintenance & repairs	1,434,970		2,077,342		3,512,312			1,434,970	2,077,342				
Cars maintenance & repairs	729,790		1,747,692		2,477,472	547,395	1,310,769	182,445	436,923				
Air lines at supplying stations maintenance & repairs	107,542		152,809		260,351	80,657	114,607	26,386	38,202				
Tools at departments workshops maintenance & repairs	2,301,496		3,630,768		5,932,264	1,726,122	2,723,076	575,374	907,692				
Accident clearing tools maintenance & repairs	1,330,561		4,137,973		5,468,534	997,921	3,103,480	332,640	1,034,493				
Water pumps & Tanks maintenance & repairs	114,686		356,037		470,723	86,015	267,028	28,672	89,009				
Maintenance expenses for damages caused by accidents	1,592,446		2,966,715		4,549,161	1,194,335	2,217,536	398,112	739,179				
Total	45,059,822	377,843,913	82,032,330		422,903,735	20,200,039	51,317,029	14,590,660	20,686,506	135		1,165,667	1,756,605
Total (exclud. presidency)	6,176,511	12,981,994			19,158,505								
					0.1709								

Train & Rolling Stock Operating Expenses

Code	Description	Chapter 1		Chapter 2	Total	Passenger cost			Freight cost			Cairo - Alex. Psg.		Cairo - Aswan Psg.		
						Wage	Material		Wage	Material	Wage	Material	Wage	Material		
300	Presidency current expenses	21,877,814		897,774	22,775,588				0.25							
310	Operating expenses for passenger stations	21,136,388		6,479,199	27,615,587	21,136,388	6,479,199									
311	Operating expenses for freight stations	6,731,508		934,375	7,665,883				6,731,508	934,375						
312	Yard lighting & operation expenses	5,106,779		500,230	5,607,009	3,830,084	375,173		1,276,695	125,058						
313	Operating expenses for diesel manoeuvre locomotives	7,574,307		11,376,286	18,950,593				7,574,307	11,376,286						
320	Passenger security & operation expenses	3,482,829		85,063	3,567,892	3,482,829	85,063									
321	Moving bridges security & operation expenses			6,804	6,804							5,103				1,701
322	Operating expenses for signals & connectors	14,135,484		301,047	14,436,531	10,601,613	225,785		3,533,871	75,262						
323	Operating expenses for On-line & wireless communication	415,982		30,885	446,867	311,987	23,164		103,996	7,721						
330	Preparing Electrical units	19,830		99,894	119,724											
331	Preparing Diesel locomotives	7,303,448		10,821,995	18,125,443	5,477,586	8,116,496		1,825,862	2,705,499						
332	Preparing Diesel units	585,895		819,090	1,404,985	585,895	819,090									
333	Preparing Turbini units	1,137,093		227,706	1,364,799	6,841,879	877,406						1,137,093			227,706
334	Preparing Passenger coaches	6,841,879		877,406	7,719,285											
335	Preparing Sleeping coaches	871,389		87,898	959,287										871,389	87,898
336	Preparing Dining coaches	332,499		1,286	333,785										332,499	1,286
337	Preparing Freight wagons	4,237,601		398,831	4,636,432				4,237,601	398,831						
	Preparing Diesel manoeuvre locomotives	2,197,001		905,610	3,102,611											
340	Operating expenses for Electrical units	228,448		19,804,505	20,032,953											
341	Operating expenses for Diesel locomotives	18,610,137		69,740,702	88,350,839	13,957,603	52,305,527		4,652,534	17,435,176						
342	Operating expenses for Diesel units	1,057,878		1,735,605	2,793,483	1,057,878	1,735,605									
343	Operating expenses for Turbini units	771,231		2,807,473	3,578,704	771,231	2,807,473									
344	Operating expenses for Passenger coaches	12,562,151		1,017,128	13,579,279	12,562,151	1,017,128									
345	Operating expenses for Sleeping coaches	123,830		-23,093	100,737											
347	Operating expenses for Freight wagons	6,020,937		334,226	6,355,163				6,020,937	334,226						
															123,830	-23,093

348	Operating expenses for Car wagons	392,932	969,272	1,362,204	392,932	969,272														
349	Operating expenses for Electrical power wagons	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
350	Electrical power units operation maintenance	26,162	322,615	348,777																
351	Diesel locomotives operation maintenance	9,880,257	10,923,235	20,803,492	7,410,193	8,192,426	2,470,064	2,750,809												
352	Diesel units operation maintenance	974,764	148,245	1,123,009	974,764	148,245														
353	Turbine units operation maintenance	354,485	9,633,489	9,987,974								354,485	9,633,489							
354	Passenger coaches operation maintenance	6,467,547	22,388,521	28,856,068	6,467,547	22,388,521														
355	Sleeping wagons operation maintenance	707,746	3,222,861	3,930,607																
356	Dining coaches operation maintenance	346,657	381,848	728,505																
357	Freight wagons operation maintenance	4,821,259	4,264,289	9,085,548																
358	Maintenance manoeuvre locomotives	1,241,840	876,665	2,118,505																
359	Maintenance for electrical power wagons	9,520	6,517,397	6,526,917	9,520	6,517,397														
370	Maintaining Aluminium line units	153,955	23,124	177,079																
	Total	146,861,648	189,041,722	335,903,370	96,872,080	113,088,073	46,687,475	42,171,507	1,491,578	9,861,195	2,382,121	3,670,800								

Appendix 3.9.6 (3) Estimation of Unit Cost

	Passenger	Freight	pass.	Freight	Pass													
Train -km (year)	43,628,849	7,310,066	50,938,915	0.856	0.144													
(day)	119,531	20,028	139,559	Adj. 0.85	Adj. 0.15													
Locomotive km	43,792,367	11,167,886	54,960,253	0.797	0.203													
(Statistics data)				Adj. 0.80	Adj. 0.20													
Car - km	385,317,557	156,481,486	541,799,043	0.711	0.289													
Track km			5,342 km	Main Line	2,508													
		Material/serv.																
Infrastructure	49,733,365	23,379,549	73,112,914															
Peculia Main line	5,534,839	6,260,853	11,795,692															
Revised	61,962,329	24,335,082	86,297,411															
	4,827,062	4,561,716	9,388,778															
	57,135,267	19,773,366	76,908,633															
				Passenger Cost	Freight Cost													
Rolling Stock Maintenance				Wage	Material	Wage	Material	Wage	Material	Wage	Material	Wage	Material	Wage	Material	Wage	Material	Wage
				20,200,039	51,317,029	14,590,660	20,686,506	135						1,165,667	1,756,605			
Train Operation				95,872,080	113,088,073	46,687,475	42,171,507	1,491,578	9,861,195	2,352,121	3,670,800							
				116,072,119	164,405,102	61,278,135	62,858,012	1,491,713	9,861,195	3,547,788	5,427,405							
				144,613,155	171,124,416	76,345,849	65,427,049	1,858,511	10,264,227	4,420,156	5,649,226							
				Actual														
Wage	282,123,120	289,200,000	1,245,891															
Materials/service	265,931,263	276,800,000	1,040,870															
				566,000,000														
Estimation of train km		Freight																
		Passenger																
		44,405,265	5,752,855	50,159,120														
Grade-2 km		44,440,977	10,337,872	54,778,849														
Grade-1 km		44,440,977	6,461,170	50,902,147														
Unit Cost		Ratio	Average	pecularity														
Infrastructure	Fixed Cost	0.40	5,759	LE/km-year	966	LE/km-year	6,725											
	Variable C.	0.60	0.84239	LE/train-km.y	0.11457	LE/train-km.y	0.95696											
Operation/M. Rolling S.	per Psg. T-km			7.10465	LE/train-km.y													
	per Fig. T-km			21.94230	LE/train-km.y													
Depreciation cost																		
Fixed cost	80,000,000	14,975.7	Main	15,838.8														
			Branch	12,671.0														
Variable	156,600,000	2,858768																
Frigh train weight	1 loco + 21	740																
Passenger train weight	1 loco+9	470																

Appendix 3.9.6 (4) Estimation of Cost for each Line

No.	Section/line	Track L (km)	Passenger Train-km		Psg. Grade	Psg.-km (Grade)	Freight Train-km	Ftel. Grade	Fre.-km (Grade-1)	Fre.-km (Grade-2)	Total (Grade-2)
			(day)	(year)							
1	Cairo - Alexandria	417	21,278	7,766,470	1.20	9,319,764	634,960	1.00	634,960	1,015,936	10,335,700
2	Cairo - El Sad El Ali	1,679	46,930	17,129,450	1.20	20,555,340	2,718,802	0.80	2,175,042	3,480,067	24,035,407
3	Benha - Ismailia - Port Said	304	6,327	2,309,355	1.20	2,771,226	475,951	1.00	475,951	761,522	3,532,748
4	Tanta - El Mansoura	108	3,417	1,247,205	1.20	1,496,646	196,061	1.00	196,061	313,698	1,810,344
	Main Line	2,508	77,952	28,452,480		34,142,976	4,025,774		3,482,014	5,571,222	39,714,198
7	Nefisha - Suez	175	1,649	601,895	0.60	361,131	282,412	1.20	338,894	542,231	903,362
8	El Mansoura - Domietta	63	1,754	640,210	1.00	640,210	157,028	1.20	188,434	301,494	941,704
9	Zagazig - Tanta	57	1,619	590,935	1.00	590,935	7,841	1.00	7,841	12,546	603,481
10	Imbaba - Iby El Baroud	120	4,959	1,481,535	0.60	888,921	84,186	1.20	101,023	161,637	1,050,558
11	Alex - Sidi Gaber - Abu Qir	45	4,366	1,599,590	0.60	956,154	141	0.80	113	180	956,334
12	Cairo - Qalyub - Tanta	107	3,991	1,456,715	0.60	874,029	-	-	-	-	874,029
13	Ein Shams - Suez	129	1,576	575,240	0.60	345,144	10,085	0.80	8,068	12,909	358,053
14	El Wasta - Abu Keesah	61	1,113	406,245	0.60	243,747	1,246	0.80	997	1,595	245,342
15	El Marg - Shebin El Kanater	21	930	339,450	0.60	203,670	7,906	1.20	9,487	15,180	218,850
16	El Mansoura - Rashid	66	1,021	372,665	0.60	223,599	583	0.80	466	746	224,345
17	El Mansoura - Mataria	71	1,670	609,550	0.60	365,730	-	-	-	-	365,730
18	Cairo - Qalyub - Zagazig	77	2,645	965,425	0.60	579,255	42,981	1.20	51,577	82,824	661,779
19	Zagazig - El Mansoura	69	1,933	705,545	1.00	705,545	12,880	1.00	12,880	20,608	726,153
20	Abu Kebir - El Saihela	34	820	299,300	0.60	179,580	-	-	-	-	179,580
21	Benha - Zefa	33	849	309,895	0.60	185,931	-	-	-	-	185,931
22	Faqus - El Samaina	10	216	78,840	0.60	47,304	-	-	-	-	47,304
23	Menut - Kafr El Zayat	49	1,197	436,905	0.60	262,143	-	-	-	-	262,143
24	El Santa - Mahalet Rous	19	449	163,865	0.60	98,331	-	-	-	-	98,331
25	Mahalet Rous - Damamhur	73	3,161	1,153,765	0.60	692,259	586	0.80	469	750	693,009
26	Benha - Menut	26	698	254,770	0.60	152,862	-	-	-	-	152,862
27	Abis - Qabbari - M. Matruh	328	3,565	1,297,575	0.60	778,545	178,800	1.00	178,800	286,080	1,064,625
28	Sherbin - Qeirn	82	2,391	872,715	0.60	523,629	2,385	0.80	1,908	3,053	526,682
29	Bouseli - El Qassabi	29	478	174,470	0.60	104,692	306	0.80	245	392	105,074
30	El Fayum - Siniturs	11	229	83,585	0.60	50,151	-	-	-	-	50,151
31	Desug - Metobus	27	373	136,145	0.60	81,687	306	0.80	245	392	82,079
32	El Abbassia - Tura	20	-	-	-	-	18,811	1.20	22,573	36,117	36,117
33	El Geish - El Magharat	24	-	-	-	-	-	-	-	-	-
34	Samala - El Salourm	260	520	189,800	0.60	112,880	33,669	0.80	26,935	43,096	156,976
35	Tebbin - Bahania	346	-	-	-	-	480,440	3.00	1,441,320	2,306,112	2,306,112
36	El Ithad - Qabbari	108	-	-	-	-	338,310	1.50	507,465	811,944	811,944
37	Beni Suel - El Lahun	25	341	124,465	0.30	37,340	-	-	-	-	37,340
38	Gaweish - Abu Sammad	12	93	33,945	0.30	10,184	-	-	-	-	10,184
39	El Gabal El Asfar	7	-	-	-	-	-	-	-	-	-
40	Kafr Saad - Kafr Silman	3	13	4,745	0.30	1,424	-	-	-	-	1,424
41	Kafr Bateikh - Domietta Port	15	-	-	-	-	23,550	1.20	28,260	45,216	45,216
42	Oena - Safaga	233	-	-	-	-	42,630	1.20	51,156	81,850	81,850
	Branch/Suburban	2,834	43,709	15,953,785		10,298,001	1,727,082		2,979,156	4,766,650	15,064,651
	TOTAL	5,342	121,661	44,406,265		44,440,977	5,732,856		6,461,170	10,337,872	54,778,849

(1000 LE)

Fixed	Infra. Maintenance cost			Passenger Cost			Freight cost			Total			Depreciation cost			Other expense			Total	No.
	Cost	Variable	Cost	Total Cost	unit	Cost	Peculia	unit	Cost	Cost	Cost	Fixed	Variable	Cost	Cost	Cost	Cost	Cost		
6,725	2,804	0,9570	9,891	12,696	7,1047	66,214	12,123	21,942	13,932	104,964	15,839	6,605	2,8588	29,547	2,208	143,324	142,959	1		
6,725	11,291	0,9570	23,001	34,292	7,1047	146,038	10,069	21,942	47,725	238,125	15,839	26,599	2,8588	68,712	5,134	338,563	337,703	2		
6,725	2,044	0,9570	3,381	5,425	7,1047	19,689		21,942	10,443	35,557	15,839	4,815	2,8588	10,099	755	51,226	51,096	3		
6,725	726	0,9570	1,732	2,459	7,1047	10,633		21,942	4,302	17,394	15,839	1,711	2,8588	5,175	387	24,666	24,604	4		
6,725	1,177	0,9570	864	54,871	7,1047	242,574		21,942	76,402	396,040	15,839	39,724	2,8588	113,534	8,482	557,779	556,361	7		
6,725	424	0,9570	901	2,041	7,1047	2,566		21,942	7,496	12,043	15,839	2,772	2,8588	2,583	193	17,590	17,546	8		
6,725	383	0,9570	578	1,325	7,1047	4,548		21,942	4,135	10,008	15,839	998	2,8588	2,692	201	13,809	13,864	9		
6,725	807	0,9570	1,005	961	7,1047	4,198		21,942	1,72	5,331	15,839	903	2,8588	1,725	129	8,098	8,068	10		
6,725	303	0,9570	915	1,812	7,1047	6,315		21,942	2,217	10,344	15,839	1,901	2,8588	3,003	224	15,473	15,433	11		
6,725	616	0,8424	736	1,218	7,1047	6,793		21,942	2	8,013	15,839	713	2,8588	2,734	204	11,664	11,635	12		
6,725	743	0,8424	302	1,352	7,1047	6,210		21,942	-	7,562	12,671	1,336	2,8588	2,499	187	11,603	11,574	13		
6,725	351	0,8424	207	1,045	7,1047	2,452		21,942	177	3,674	12,671	1,635	2,8588	1,024	76	6,408	6,392	14		
6,725	121	0,8424	184	558	7,1047	1,732		21,942	22	2,312	12,671	773	2,8588	701	52	3,838	3,829	15		
6,725	380	0,8424	189	305	7,1047	1,447		21,942	208	1,960	12,671	266	2,8588	526	47	2,899	2,892	16		
6,725	477	0,9570	350	569	7,1047	1,589		21,942	10	2,168	12,671	836	2,8588	641	48	3,693	3,684	17		
6,725	518	0,9570	633	827	7,1047	2,598		21,942	-	3,426	15,839	1,125	2,8588	1,046	78	5,674	5,660	18		
6,725	464	0,9570	696	1,151	7,1047	4,115		21,942	1,132	6,398	15,839	1,220	2,8588	1,892	141	9,651	9,626	19		
6,725	196	0,8424	151	1,159	7,1047	5,013		21,942	283	6,454	15,839	1,093	2,8588	2,076	155	9,778	9,753	20		
6,725	190	0,8424	157	347	7,1047	1,321		21,942	-	1,623	12,671	431	2,8588	513	38	2,605	2,599	21		
6,725	58	0,8424	40	347	7,1047	1,321		21,942	-	1,698	12,671	418	2,8588	532	40	2,657	2,650	22		
6,725	282	0,8424	221	97	7,1047	396		21,942	-	434	12,671	127	2,8588	135	10	706	704	23		
6,725	109	0,8424	83	503	7,1047	1,862		21,942	-	2,365	12,671	621	2,8588	749	56	3,792	3,782	24		
6,725	420	0,8424	584	192	7,1047	699		21,942	-	891	12,671	241	2,8588	281	21	1,494	1,490	25		
6,725	144	0,8424	129	1,004	7,1047	4,918		21,942	10	5,933	12,671	925	2,8588	1,981	148	8,987	8,964	26		
6,725	1,889	0,8424	444	273	7,1047	1,086		21,942	-	1,359	12,671	317	2,8588	437	33	2,145	2,140	27		
6,725	167	0,8424	89	2,786	7,1047	5,531		21,942	3,923	12,240	12,671	4,156	2,8588	3,044	227	19,667	19,617	28		
6,725	172	0,8424	444	916	7,1047	3,720		21,942	42	4,678	12,671	1,039	2,8588	1,506	112	7,335	7,317	29		
6,725	63	0,8424	42	256	7,1047	744		21,942	5	1,005	12,671	367	2,8588	300	22	1,695	1,691	30		
6,725	155	0,8424	69	106	7,1047	356		21,942	-	462	12,671	139	2,8588	143	11	755	753	31		
6,725	115	0,8424	30	225	7,1047	590		21,942	5	810	12,671	942	2,8588	235	18	1,405	1,401	32		
6,725	138	0,8424	-	146	7,1047	-		21,942	495	641	12,671	253	2,8588	103	8	1,005	1,003	33		
6,725	1,497	0,8424	132	138	7,1047	-		21,942	-	138	12,671	304	2,8588	-	-	442	441	34		
6,725	2,327	0,9570	2,207	1,630	7,1047	809		21,942	591	3,030	12,671	3,294	2,8588	449	34	6,806	6,789	35		
6,725	726	0,9570	777	4,534	7,1047	-		21,942	31,625	36,159	15,839	5,490	2,8588	6,593	493	48,725	50,671	36		
6,725	144	0,8424	31	1,503	7,1047	-		21,942	11,135	12,638	15,839	1,711	2,8588	2,321	173	16,843	16,900	37		
6,725	69	0,8424	9	175	7,1047	265		21,942	-	441	12,671	317	2,8588	107	8	872	870	38		
6,725	40	0,8424	-	78	7,1047	72		21,942	-	150	12,671	152	2,8588	29	2	333	333	39		
6,725	17	0,8424	-	40	7,1047	-		21,942	-	40	12,671	89	2,8588	-	-	129	129	40		
6,725	101	0,9570	43	18	7,1047	10		21,942	620	764	15,839	238	2,8588	129	10	1,141	1,138	41		
6,725	1,567	0,9570	78	144	7,1047	-		21,942	1,122	2,768	15,839	3,690	2,8588	234	17	6,710	6,693	42		
				31,427		73,164			65,369	169,959		40,278		43,066	3,218	256,521	257,939			
				86,298		315,738			141,771	565,996		80,002		156,600	11,700	814,300	814,300			

11,700 814300

Appendix 3.9.6 (5) Estimation of Passenger Revenue (1994/95)

No.	Name of Line/segment	Main/Bra.	1995			Passenger-km ('1000)			Fare Ratio	Revenue (1000LE)	Adjusted Revenue (1000LE)	Conduc-tor Reve.*	Other Reve.*	Psg-km	Other Revenue	Total
			Estimate	(day)	(Year)	Adj.-1	Adj.-2	for Reve.								
1	Cairo - Alexandria	Suburban	40,538	39,855	14,547,075	14,547,075	10,247,155	0.007152	73,292	73,292	24,451	0	10,247,155	12,675	110,418	
2	Cairo - El Sad El Ali	Main	58,590	58,562	21,375,130	21,375,130	15,056,928	0.005600	84,319	84,319	28,130	0	15,056,928	18,825	131,073	
3	Benha - Port Said	Main	11,009	11,009	4,018,285	4,018,285	2,830,534	0.005600	15,851	15,851	5,288	0	2,830,534	3,501	24,640	
4	Tanta - Mansoura	Main	5,700	5,700	39,940,490	39,940,490	28,134,616	0.006165	173,462	173,462	3,128	0	1,740,868	2,153	14,658	
7	Nefisha - Suez	Branch	913	913	333,245	333,245	278,844	0.005600	1,562	1,502	501	0	278,844	345	2,348	
8	Mansoura - Domietta	Branch	3,141	3,141	1,146,485	1,146,485	479,655	0.005600	2,686	2,584	862	0	479,655	593	4,039	
9	Zagazig - Tanta	Branch	1,236	1,236	451,140	451,140	377,493	0.005600	2,114	2,033	678	0	377,493	467	3,178	
10	Imbaba - Itay El Baroud	Branch	333	361	131,765	131,765	110,255	0.005600	617	594	198	0	110,255	136	928	
11	Sidi Gaber - Abu Qir	Suburban	-	2,786	1,016,890	1,016,890	1,016,890	0.003300	3,356	3,228	1,077	X	-	4,304	4,304	
12	Cairo - Qalyub - Tanta	Sub./Bra.	3,213	3,583	1,307,795	1,307,795	1,094,303	0.004600	5,034	4,842	1,615	0	1,094,303	1,354	7,810	
13	Ein Shams - Suez	Branch	2,348	2,348	857,020	857,020	358,558	0.005600	2,008	1,931	644	0	358,558	444	3,019	
14	El Wasra - Abu Kersah	Branch	2,177	2,177	794,605	794,605	332,445	0.003300	1,097	1,055	352	0	332,445	411	1,818	
15	El Marg - Shebin El Khaner	Suburban	193	193	70,445	70,445	58,945	0.003300	187	187	62	X	-	250	250	
16	El Marmora - Rashid	Branch	209	209	76,285	76,285	63,832	0.003300	211	203	68	0	63,832	79	349	
17	Mansoura - Matana	Branch	1,433	1,433	523,045	523,045	218,830	0.004600	1,007	968	323	X	-	1,291	1,291	
18	Cairo - Qalyub - Zagazig	Sub./Bra.	1,219	1,532	559,180	559,180	467,896	0.004600	2,152	2,070	691	X	-	2,761	2,761	
19	Zagazig - Mansoura	Branch	3,231	3,231	1,179,315	1,179,315	493,399	0.004600	2,270	2,183	728	0	493,399	610	3,522	
20	Abu Kibir - El Salheia	Branch	345	345	125,925	125,925	105,368	0.003300	348	334	112	X	-	446	446	
21	Benha - Zetta	Branch	547	547	199,655	199,655	167,062	0.003300	551	530	177	X	-	707	707	
22	Faqus - El Samania	Branch	-	18	6,570	6,570	6,570	0.003300	22	21	7	X	-	28	28	
23	Menuf - Kafr El Zaiyat	Branch	363	363	132,495	132,495	110,866	0.003300	366	352	117	X	-	469	469	
24	El Santa - Mahalet Rouh	Branch	265	265	96,725	96,725	80,935	0.003300	267	257	86	X	-	343	343	
25	Mahalet Rouh - Damamhur	Branch	2,761	2,761	1,007,765	1,007,765	421,626	0.004600	1,939	1,865	622	0	421,626	522	3,009	
26	Benha - Menuf	Branch	491	491	179,215	179,215	149,959	0.003300	495	476	159	X	-	635	635	
27	Abis - Marsa Matruh	Branch	1,835	1,835	669,775	669,775	560,437	0.005600	3,138	3,019	1,007	0	560,437	693	4,719	
28	Sherbin - Qelbin	Branch	1,880	1,880	696,200	696,200	574,181	0.005600	3,215	3,093	1,032	0	574,181	710	4,835	
29	Bousseil - El Qassabi	Branch	192	192	70,080	70,080	58,640	0.003300	194	186	62	0	58,640	73	321	
30	El Fayum - Sinnuris	Branch	205	205	7,300	7,300	7,300	0.003300	24	23	8	X	-	31	31	
31	Metobus - Desouk	Branch	730	68	24,820	24,820	24,820	0.003300	82	79	26	X	-	105	105	
32	El Abbassia - Tura	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	El Geish - El Magharat	Branch	-	7	2,555	2,555	2,555	0.005600	14	14	5	X	2,555	3	22	
34	Samala - El Saloum	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	Tebbin - Bahana	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	El Ithad - Qabbani	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	Beni Suef - El Lahum	Branch	80	33	12,045	12,045	12,045	0.003300	40	38	13	0	12,045	15	66	
38	Gaweish - M. Abu Sammad	Branch	45	10	3,650	3,650	3,650	0.003300	12	12	4	X	-	-	15	
39	El Gabal El Asfar	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	Kafr Saad - Kafr Soqiman	Branch	-	1	365	365	365	0.003300	1	1	0	X	-	-	2	
41	Kafr Bateikh - Domietta Port	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	Qena - Safaga	Freight	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Branch/suburban line		145,222	147,105	13,752,835	13,752,835	9,378,592		44,765	43,055	72,233		35,093,752	43,409	332,159	
	Total		145,222	147,105	53,693,325	53,693,325	37,513,209		218,226	216,517	72,233		35,093,752	43,409	332,159	
	Actual				37,513,208	37,513,208		216,517	216,517	72,233			43,409			

*0 line is assumed to be other revenue. X: non-other reve. line.

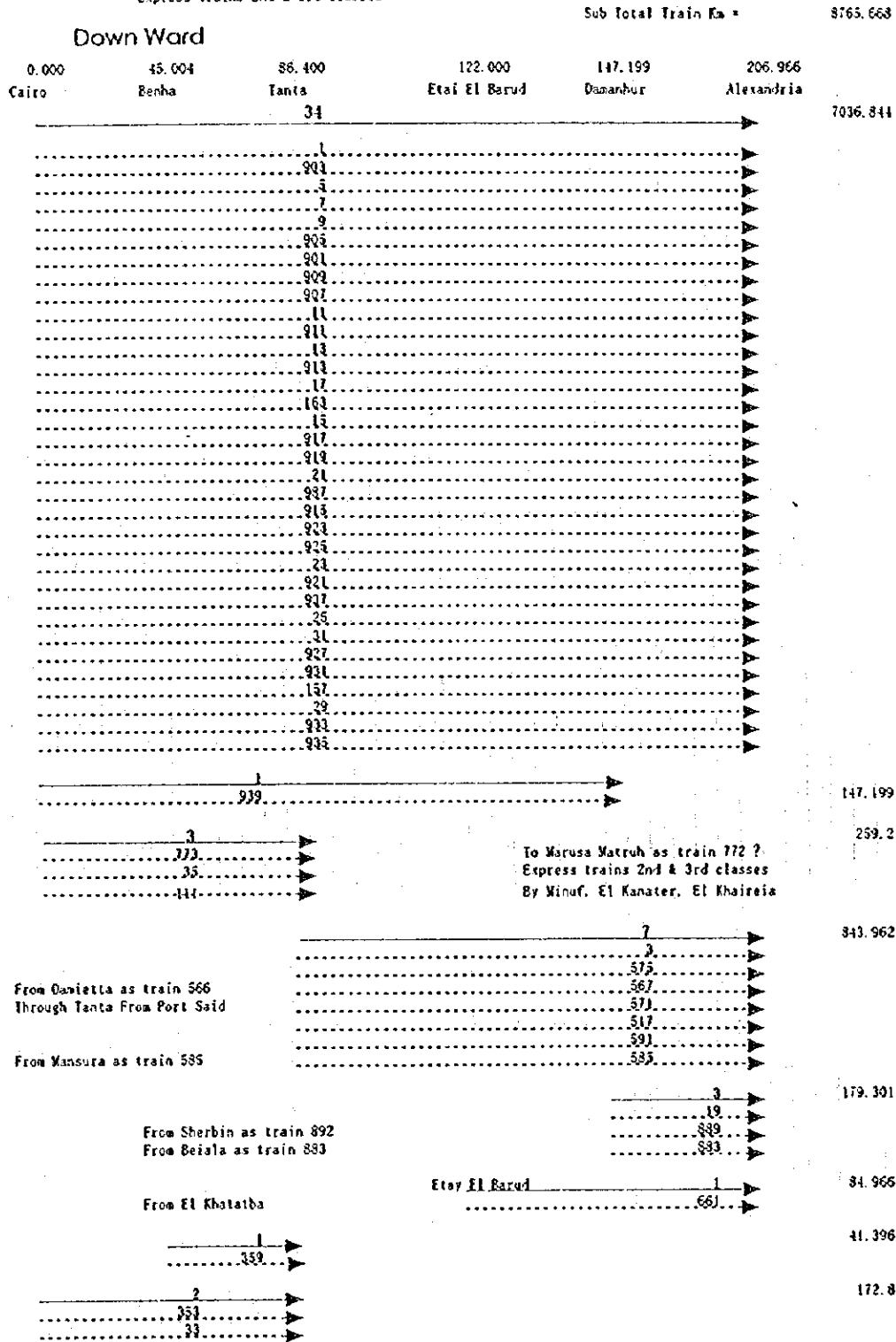
Appendix 3.9.6 (6) Estimation of Revenue and Cost Recovery Ratio

No.	Section/line	Track L. (km)	Freight Train-km	Freight Revenue	Passenger Revenue	Total Revenue	Misc. Reve.	Dining Sleep	Total Revenue	Total Cost	Cost Rec. Ratio
1	Cairo - Alexandria	417	634,960	12,528	110,418	122,946	35,910		158,857	142,959	1.11
2	Cairo - El Sad El Ali	1,679	2,718,802	53,645	131,073	184,718	53,952	4,100	242,770	337,703	0.72
3	Benha - Ismailia - Port Said	304	475,951	9,391	24,640	34,031	9,940		43,971	51,056	0.86
4	Tanta - El Mansoura	108	196,061	3,869	14,658	18,527	5,411		23,938	24,604	0.97
	Main Line	2,508	4,025,774	79,433	280,790	360,222	105,214		465,436	556,361	0.84
7	Nefesia - Suez	175	282,412	5,572	2,348	7,920	2,313		10,233	17,546	0.58
8	El Mansoura - Domietta	63	157,028	3,098	4,039	7,137	2,085		9,222	13,864	0.67
9	Zagazig - Tanta	57	7,841	155	3,333	3,333	974		4,307	8,068	0.53
10	Imbaba - Itay El Baroud	120	84,196	1,661	928	2,589	756		3,346	15,433	0.22
11	Alex. - Sidi Gaber - Abu Qir	45	141	3	4,304	4,307	1,258		5,565	11,635	0.48
12	Cairo - Qalyub - Tanta	107	-	-	7,810	7,810	2,281		10,092	11,574	0.87
13	Ein Shams - Suez	129	10,085	199	3,019	3,218	940		4,158	6,392	0.65
14	ElWasta - Abu Kesah	61	1,246	25	1,818	1,843	538		2,381	3,829	0.62
15	El Marg - Shebin El Kanater	21	7,906	156	250	406	118		524	2,892	0.18
16	El Mansoura - Rashid	66	583	12	349	361	106		465	3,684	0.13
17	El Mansoura - Matania	71	-	-	1,291	1,291	377		1,668	5,660	0.29
18	Cairo - Qalyub - Zagazig	77	42,981	848	2,761	3,609	1,054		4,663	9,626	0.48
19	Zagazig - El Mansoura	69	12,880	254	3,522	3,776	1,103		4,878	9,753	0.50
20	Abu Kebir - El Salheia	34	-	-	446	446	130		576	2,559	0.22
21	Benha - Zetta	33	-	-	707	707	207		914	2,650	0.34
22	Facus - El Samaina	10	-	-	28	28	8		36	704	0.05
23	Menuf - Kafr El Zayat	49	-	-	469	469	137		606	3,782	0.16
24	El Santa Mahalet Roush	19	-	-	343	343	100		443	1,430	0.31
25	Mahalet Roush - Dammanhur	73	586	12	3,009	3,021	892		3,903	8,964	0.44
26	Benha - Menuf	25	-	-	635	635	185		820	2,140	0.38
27	Abis - Qabban - Marsa Matruh	328	178,800	3,528	4,719	8,247	2,409		10,656	19,617	0.54
28	Sherbin - Qeilein	82	2,385	47	4,835	4,882	1,426		6,308	7,317	0.86
29	Boussell - El Qassabi	29	306	6	321	327	95		422	1,691	0.25
30	El Fayum - Sinnuris	11	-	-	31	31	9		40	753	0.05
31	Desug - Motobus	27	306	6	105	111	32		144	1,401	0.10
32	El Abbassia - Tura	20	18,811	371	-	371	108		480	1,003	0.48
33	El Geish - El Magharat	24	-	-	-	-	-		-	441	-
34	Samala - El Saloum	260	33,659	664	22	686	200		886	6,789	0.13
35	Tebbin - Baharia	346	480,440	50,671	-	50,671	50,671		50,671	50,671	1.00
36	El Itad - Qabbat	108	338,310	6,675	-	6,675	1,950		8,625	16,800	0.51
37	Beni Suef - El Lahun	25	-	-	66	66	19		85	870	0.10
38	Gawesh - Abu Sammad	12	-	-	15	15	5		20	333	0.06
39	El Gabal El Asfar	7	-	-	-	-	-		-	129	-
40	Kafr Saad - Kafr Sijman	3	-	-	2	2	0		2	71	0.03
41	Kafr Bateikh - Domietta Port	15	23,550	465	-	465	136		600	1,138	0.53
42	Cena - Safaga	233	42,630	841	-	841	246		1,087	6,693	0.16
	Branch/Suburban	2,834	1,727,982	75,268	51,369	1,266,338	22,188		1,488,226	257,939	0.58
	TOTAL	5,342	5,752,856	154,700	332,159	486,860	127,402		618,262	814,300	0.76
	Actual Revenue			154,700			127,400				

Appendix 3.10 -1 Train No. and Direction on Trunk lines Cairo - Alexandria Line

The way of train operation and train Km on line 1

Between Cairo and Alexandria
Express trains Air condition 1st & 2nd classes and
Express trains 2nd & 3rd classes



NOTE: Train No. 163 starts from El Sad El Ali at 13:20 and train No. 163 stops in Quesna for military works.

NOTE: Train 157 starts from Sohag at 12:30.

NOTE: Train 935 starts from Luxor at 13:15

NOTE: Train 35 K with mark * does not operate in Thursday.

**Appendix 3.10 -2 Train No. and Direction on Trunk lines
Cairo - Benha - Zagazig - Ismailia - Port Said Line**

The way of train operation and train Km on line 2

Between Cairo, Benha and Port Said
Express trains Air condition 1st & 2nd classes
and ordinary 2nd & 3rd classes

					Sub Total Train Km =	2,918.0
0.000	45.000	80.000	159.000	236.000		
Cairo	Benha	Zagazig	Ismailia	Port Said		
Down Ward						
5						795.0
----->					To Suez	
593						
947						
947						
953						
957						
963						
----->						
3						231.0
----->						
285						
287						
789						
----->						
3						240.0
----->					To Damietta	
961						
965						
339						
----->					To El Mansura	
5						1,189.0
----->						
945						
971						
951						
941						
959						
----->						
2						472.0
From Alex.	From Alexandria, by Zekta line, by train No.				589	
From Alex.					573	

**Appendix 3.10 -3 Train No. and Direction on Trunk lines
Cairo - Tanta - Mansura - Domietta Line**

The way of train operation and train Km on line 5

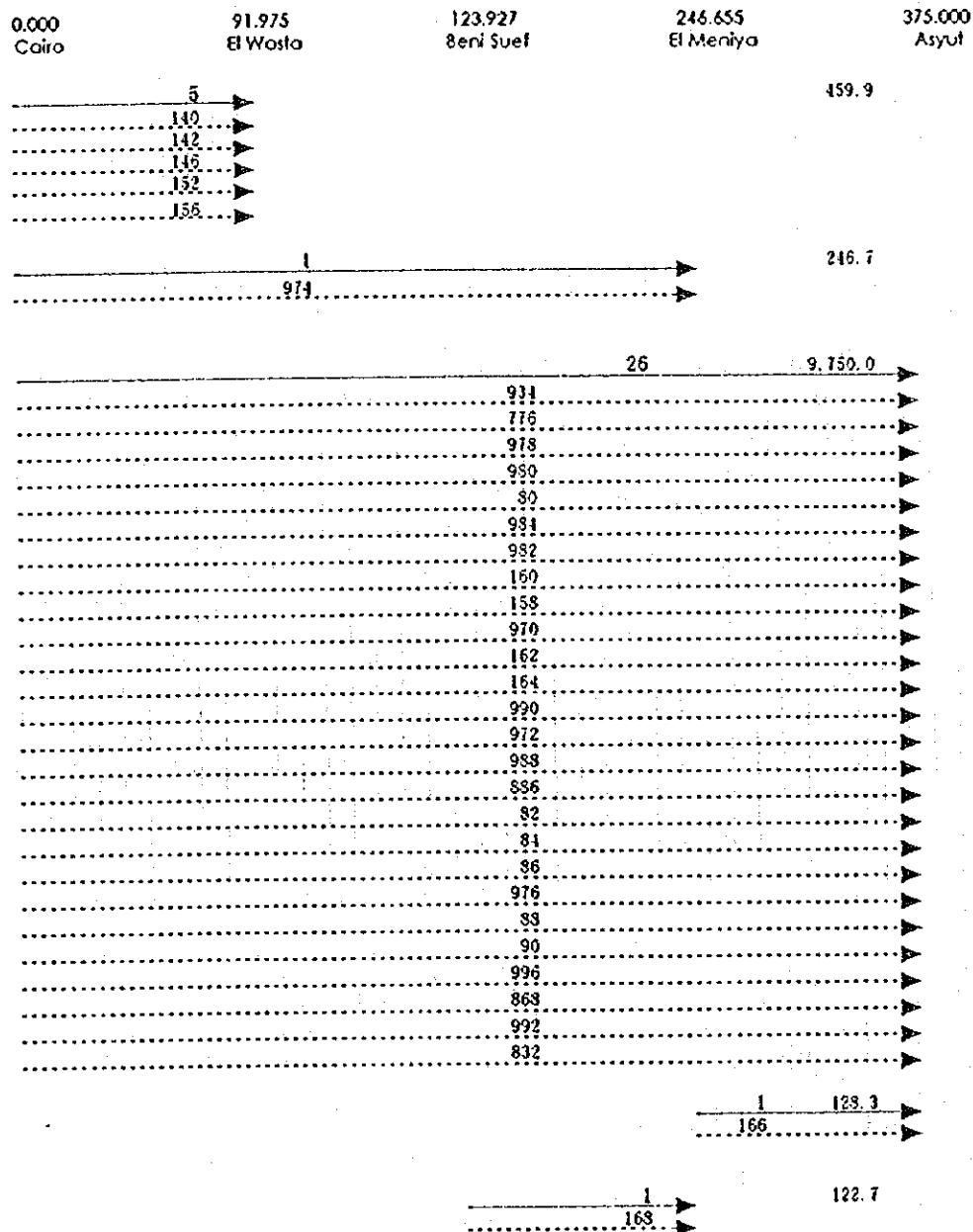
Among Cairo, Tanta, Mansura and Damietta
Express trains Air condition 1st & 2nd classes
and ordinary 2nd & 3rd classes.

							Sub Total Train Km =	1250.132	
-85.248	0.000	13.983	27.212	53.561	77.383	118.153			
0.000	85.248								
Cairo	Tanta	Mahilet	Roh El	Mahalla El Kbra	Mansura	Sherbin	Damietta		
Down Ward									
2								277.618	
----->									
807									
849									
----->									
1								99.231	
----->									
809									
----->									
1								23.822	
----->							Qallia		
813									
----->									
From Cairo	1							13.983	
803									
----->									
From Alexandria	2							107.122	
From Alexandria	563								
From Alexandria	587								
From Alexandria	519								
----->									
3								610.203	
----->									
805									
935									
955									
----->									
From Alexandria	1							118.153	
----->									
569									

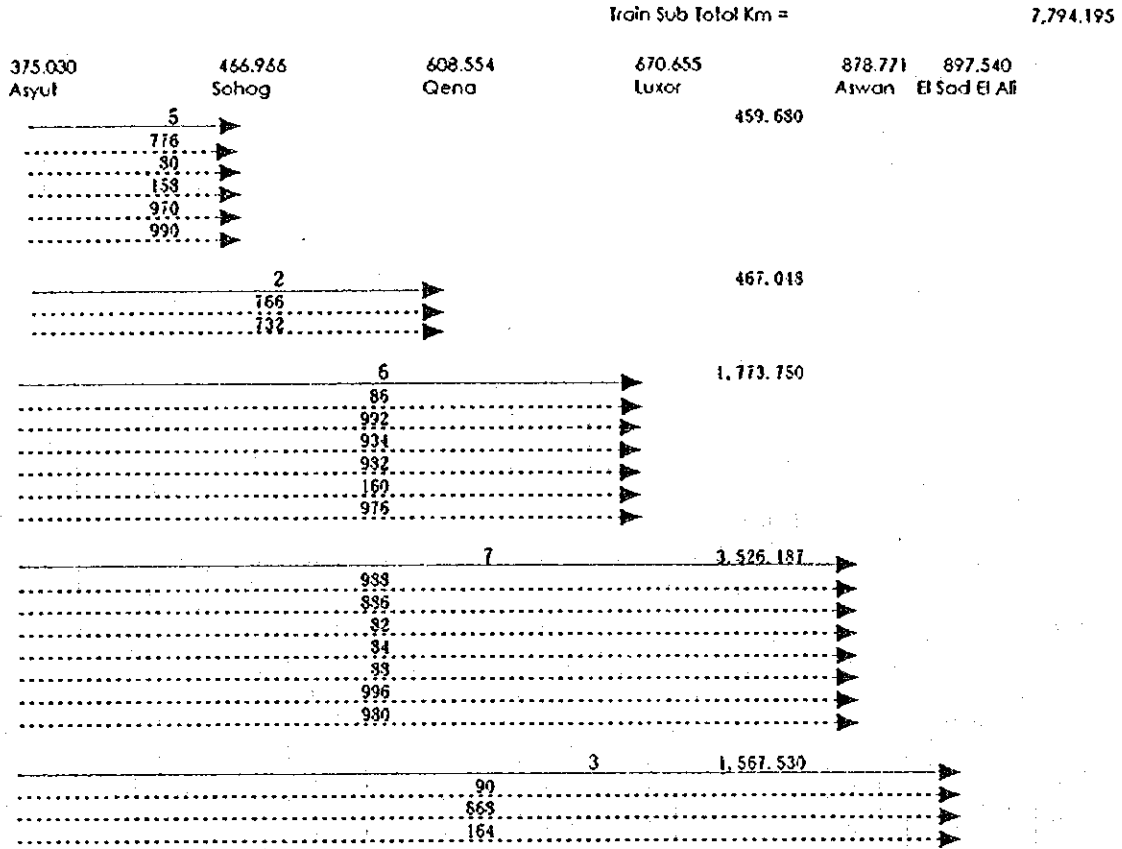
**Appendix 3.10 -4 Train No. and Direction on Trunk lines
Cairo - Asyut - Luxor - Aswan Line**

The way of train operation and Train Km on line 26
Between Cairo and Asyut

Train Sub Total Km = 10,707.6

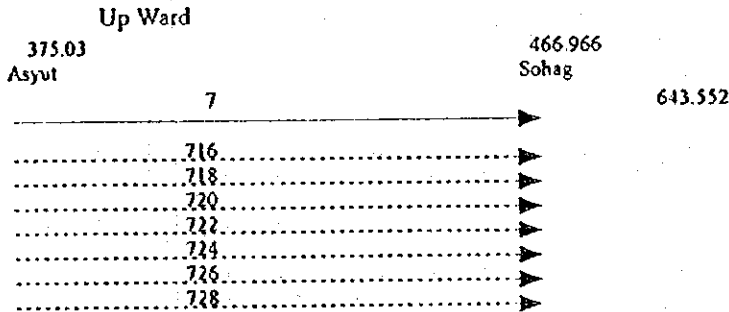


The way of train operation and train Km on line 26
Between Asyut-Aswan-El Sad El Ali



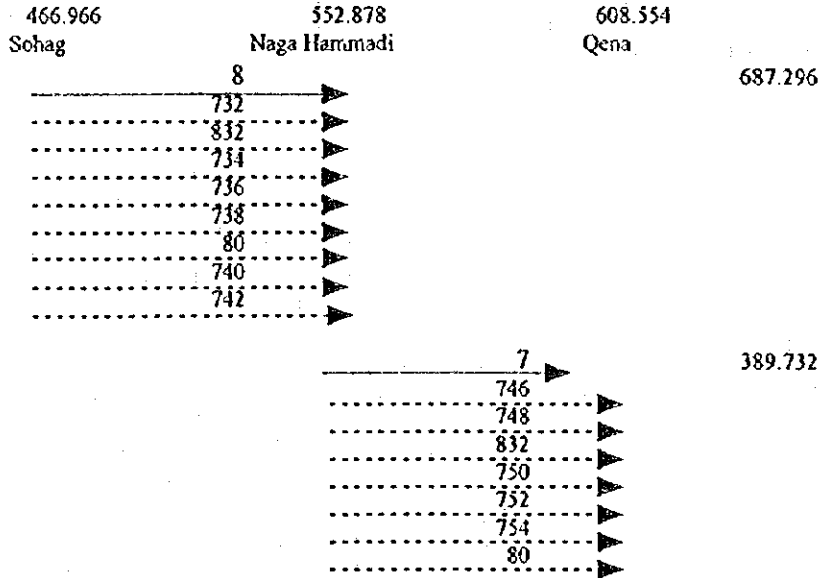
Between Sohag and Asyut

Train Sub Total Km = 643.552



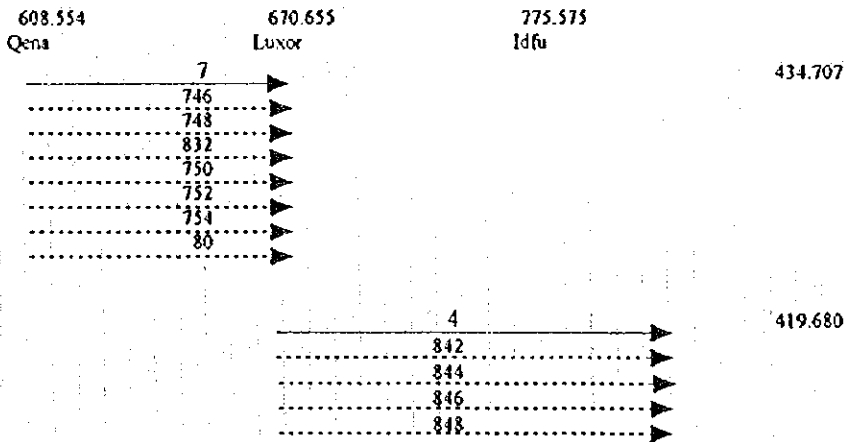
Between Qena and Sohag

Train Sub Total Km = 1,077.028



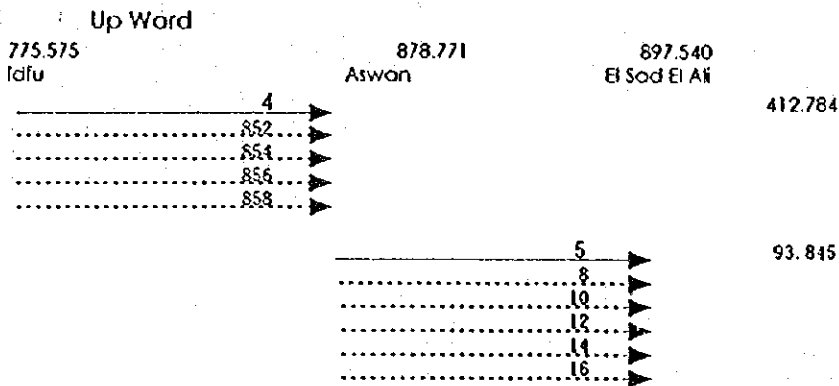
Between Qena and Idfu

Train Sub Total Km = 854.387



Among Idfu, Aswan and El Sad El Ali

Train Sub Total Km = 506.629



Appendix 3.11

Table 3.11.1 Particulars of Locomotive and Train Unit

Diesel Locomotive

Type	Series No.	Manufacturer	HP	Wheel Arrangement	Max. Speed (km/h)	Weight (t)	Service PC, FC, S	Gear Ratio
AA22T	3001/3200	H	2,475	Co-Co	120	111.00	77P, 120F	60/17
AA22T	3201/3221	H	2,475	Co-Co	140	111.00	20P	58/19
JT22MC	3222/3240	C,A	2,475	Co-Co	140	111.00	19P	60/17
AA22T	3241/3270	H	2,475	Co-Co	120	111.00	29F	60/17
AA22T	3271/3299	H	2,475	Co-Co	105	128.50	29F	62/15
JT22MC	3445/3470	C, A	2,475	Co-Co	140	111.00	26P	60/17
G22W/AC	3601/3661	C	1,650	Bo-Bo	120	78.00	61P	60/17
G22W	3801/3832	A	1,650	Bo-Bo	105	80.00	31P	60/17
G22W/AC	3833/3999	C	1,650	Bo-Bo	105	78.00	164P	60/17
G22W	3301/3411	A	2,000	Bo-Bo	120	106.00	51S	60/17
G22W	3412/3444	A	2,200	Bo-Bo	120	106.00	31S	60/17
G22W	3501/3548	A	1,000	Bo-Bo	120	73.25	25S	60/17
G22W	3701/3797	A	1,400	Bo-Bo	120	77.00	61S	60/17
	3551/3580	Hu	1,000	Bo-Bo	100	74.00	29S	60/17
	4501/4526	G	600	D	60	60.00	24S	Hydraulic
	4301/4393	Hu	400	C	60	45.00	38S	Hydraulic

- [Remarks]
- (1) Wheel diameter: All 1,000 mm
- (2) A : American H : Henschel
 C : Canadian Hu : Hungarian
 G : German
- (3) P : PC S : Shunting
 F : FC

Gas Turbine Train Unit

Type	Series Number	Manufacturer	kW	Train Seating Capacity (psn)	Max. Speed (km/h)	Train Weight (t)	Year of First built	Remarks
Turbo Train	6601/6603	ANF	2x1200kW	600	140	451.40	1983	
	A/W 6604							
	D/H 6604							
	B/K 6604							
	C/T 6004							

Appendix 3.11

Table 3.11.2 Current Conditions of Locomotive and Train Unit

Diesel Locomotive

Type	Series No.	Manu- fac- turer	HP	Age 31-12- 1995	No. on Book 1-1- 1995	Waiting Repair	No. of Locos		Avai- labi- lity	Remarks
							Daily Ope- ration	Re- served		
AA22T	3001/3200	H	2,475	2-18	197	19	149	29	76	
AA22T	3201/3221	H	2,475	11-12	20	2	14	4	70	
JT22MC	3222/3240	C, A	2,475	10-11	19	1	12	6	63	
AA22T	3241/3270	H	2,475	18-19	29	3	17	9	59	
AA22T	3271/3299	H	2,475	16	29	0	23	6	79	Baharia, Safaga
JT22MC	3445/3470	C, A	2,475	10-11	26	1	15	10	58	
G22W/AC	3601/3661	C	1,650	12-13	61	2	46	13	75	
G22W	3801/3832	A	1,650	17	31	1	25	5	81	
G22W/AC	3833/3999	C	1,650	13-15	164	6	126	32	77	
G22W	3301/3411	A	2,000	Over 25	51	12	30	9	59	Shunting
G22W	3412/3444	A	2,200	19-22	31	2	19	10	61	Shunting
G22W	3501/3548	A	1,000	Over 30	25	4	18	3	72	Shunting
G22W	3701/3797	A	1,400	Over 30	61	11	38	12	62	Shunting
	3551/3580	Hu	1,000	22	29	5	9	15	31	Shunting
	4501/4526	G	600	20	24	16	5	3	21	Shunting
	4301/4393	Hu	400	Over 30	38	10	15	13	39	Shunting

A: American
 C: Canadian
 G: German
 H: Henschel
 Hu: Hungarian

Gas Turbine Train Unit

Type	Series No.	Manu- fac- turer	HP	Age 31-12- 1995	No. on Book 1-1- 1995	Waiting Repair	No. of Locos		Avai- labi- lity	Remarks
							Daily Ope- ration	Re- served		
Turbo Train	6601/6603	ANF	2x1200	12	3 Trains		3	0	100	10 Car Train
	A/W 6604			12	2	1		1		Power car with PC
	D/H 6604			12	2			2		1st class PC
	B/K 6604			12	2			2		2nd class PC
	C/T 6004			12	2			2		Buffet car

Appendix 3.11

Table 3.11.3 Number of Locomotives by First Service Year (1)

	2475 HP Locomotives							1650 HP Locomotives			
	AA22T	AA22T	JT22MC	AA22T	AA22T	JT22MC	Total	G22W /AC	G22W	G22W /AC	Total
	3001-3200	3201-3221	3222-3240	3241-3270	3271-3299	3445-3470		3601-3661	3801-3832	3833-3999	
H	H	C/A	H	H	C/A	C	A	C			
No. on Book											
1-1-1995	197	20	19	29	29	26	320	61	31	164	256
1st Service											
1974											
1975											
1976				22			22				
1977	20			7			27				
1978	13						13		31		31
1979					29		29				
1980	25						25			63	63
1981	21						21			20	20
1982	45						45	2		81	83
1983	4	12					16	59			59
1984		8	19			15	42				
1985	21					11	32				
1986											
1987											
1988	15						15				
1989											
1990	6						6				
1991											
1992	11						11				
1993	13						13				
1994	3						3				
Aug 12, 1995 Break Down Operation							19 301				

Appendix 3.11

Table 3.11.3 Number of Locomotives by First Service Year (2)

	Old American (1400-2200HP)					Shunting (400-1000HP)					
	G22W	G22W	G22W	G22W	Total	3551-3580	4501-4526	4301-4393	Total		
	3301-3411	3412-3444	3501-3548	3701-3797		Old A	Old A	Old A		Old A	Hung.
No. on Book											
1-1-1995	51	31	25	61	168	29	24	38	91		
Ist Service Year											
Before 1970	51		25	61	137			38	38		
1971											
1972											
1973		17			17	29			29		
1974							1		1		
1975							23		23		
1976		14			14						
Aug 12, 1995											
Break Down	22	8	6	22	58	18	21	29	68		
Operation	29	23	19	39	110	11	3	9	23		
Remarks						1998 Scrap	2000 Scrap	1974/80 Renew Scrap			

Appendix 3.11

Table 3.11.4 Transition Number on Book (Diesel Loco., Train Unit)

Type	Manufacturer	Series Number	Number on Book as of Jan. 1									
			1985	1987	1988	1989	1990	1991	1992	1993	1994	1995
AA22T	Henschel	3001-3200	152	151	151	166	164	170	170	181	194	197
AA22T	Henschel	3201-3221	21	21	21	21	20	20	20	20	20	20
JT22MC	Canadian American	3222-3240	19	19	19	19	19	19	19	19	19	19
AA22T	Henschel	3241-3270	29	29	29	29	29	29	29	29	29	29
AA22T	Henschel	3271-3299	29	29	29	29	29	29	29	29	29	29
JT22MC	Canadian American	3445-3470	26	26	26	26	26	26	26	26	26	26
G22W/AC	Canadian	3601-3661	61	61	61	61	61	61	61	61	61	61
G22W	American	3801-3832	32	31	31	31	31	31	31	31	31	31
G22W/AC	Canadian	3833-3999	166	166	166	166	165	165	165	165	165	164
Sub-Total			535	533	533	548	544	550	550	561	574	576
G22W	American	3301-3411	97	94	94	94	93	72	54	51	51	51
		3412-3444	32	32	32	32	32	32	31	31	31	31
		3501-3548	44	44	44	44	44	31	26	25	25	25
		3701-3797	79	79	79	79	73	65	62	62	62	61
Sub-Total			249	249	249	249	242	200	173	169	169	168
Total			784	782	782	797	786	750	723	730	743	744
Hungary		3551-3580	29	29	29	29	29	29	29	29	29	29
German		4501-4526	25	25	25	25	24	24	24	24	24	24
Magav Hungary		4301-4393	89	89	88	88	88	59	44	44	44	38
Sub-Total			143	143	142	142	141	112	97	97	97	91
Grand Total			927	925	924	939	927	862	820	827	840	835

Turbo Train Unit	ANF	6601-6603	3	3	3	3	3	3	3	3	3	3
Power Car with PC		A/W 6604	2	2	2	2	2	2	2	2	2	2
1st PC		D/H 6604	2	2	2	2	2	2	2	2	2	2
2nd PC		B/K 6604	2	2	2	2	2	2	2	2	2	2
Buffet		C/T 6604	2	2	2	2	2	2	2	2	2	2

Appendix 3.11

Table 3.11.5 Particulars and Current Conditions of Passenger car

Type	Manufacturer	Series No.	Age 31-12- 1995	No. on Book 1-1-1995	Tare Weight (t)	Seating Capacity	Availa- bility %	Remarks
WL	Hungarian	11001/11050	31-35	43	49.20	Bed 22	0.00	No work
	German MBB	11051/11110	11-15	60	36.10	Bed 24	100.00	
	Spain	11111/11141	1	31	41.25	Bed 20	100.00	
CB	Spain	11340/11348	1	7	38.60	Seat 24	100.00	
	German	11328/11339	11-15	12	42.85	Seat 20	100.00	
1st	Hungarian	11301/11327	26-35	22	49.00	40	0.00	Modified to 2nd class, etc
	German	11401/11422	16-20	21	43.00	47	85.70	
	France	11423/11464	6-15	41	39.80	47	100.00	
	Spain	11350/11392	1-2	43	44.00	45	100.00	
	SEMAF	11465/11484	1-2	20	44.35	47	80.00	
	SEMAF(Spain)	11485/11494	1	10	44.00	45	80.00	
2nd	German	11601/11677	16-20	65	44.80	64	92.30	
	France	11678/11747	6-15	68	39.60	64	92.70	
	Spain	11201/11250	3-4	50	42.90	60	99.00	
	SEMAF	11748/11974	1-10	227		60	93.07	
Buffet	German	11501/11511	16-20	11	44.80	36	0.00	
	France	11512/11539	6-5	28	41.70	36	92.70	
	SEMAF	11540/11566	3-4	27		36	93.07	
Total AC Car				786				

Power Car	German	14154/14217	11-15	72	47.40	HP 650	100.00	
	SEMAF	17001/17042	1-10	41		HP 644	100.00	(56) Abdel Salam Co.
2nd	SEMAF	10611/10889	1-30	596	42.00	105/64	86.30	10612-10857/10860-10889
		13205/15520				80		
	Rumania	112901/112965 112047/112423	11-20	83	42.00	88	84.00	
	(Suburban)	114000/114075 112801/112875	11-15	141	42.00	108	86.30	
	German	10521/10605	21-25	15	38.00	88	0.00	No work
	3rd	SEMAF	12231/13347	6-25	419	42.00	80	79.80
Rumania		112001/112430	11-20	276	42.00	107	83.30	
Rumania		112601/112769 113002/113285	11-15	432	42.00	108	83.70	
German		12511/12621	21-25	21	36.00	108	0.00	No work
(Suburban)	1601/7695 7802/7925	11-15	199	42.00	78	94.50	Push-Pull Train 6 coaches Cairo, Tanta and Alexandria Area	
	(with Driver's Cab)	7501/7560	11-15	45	42.00	72		94.50
Luggage	14032/14050 14430/14645	11-20	211	41.00			50.70	
	Refrigerator	19927/19931 19933/19940 19942/19945 19985	10-40	16				Connected to passenger train
Total				2,567				

Appendix 3.11

Table 3.11.6 Age-wise Passenger Car

Manufacture	Series Number	No. on Book	Age													
			1-5	10	15	20	25	30	35	40	45	50	50-			
WL Hungarian	11001-11050	43								43						
○ MBB WL German	11051-11110	60			60											
○ WL Spain	11111-11141	(55) 31	(55) 31													
○ CB Spain	11340-11348	(10) 7	(10) 7													
○ CB German	11328-11339	12			12											
1st	Hung	11301-11327	22						2	20						
	German	11401-11422	21			21										
	France	11423-11464	41		7	34										
	Spain	11350-11392	43	43												
	SEMAF	11465-11484	20	20												
	SEMAF (Spain)	11485-11494	10	10												
2nd	German	11601-11677	65			65										
	France	11678-11747	68		8	60										
	Spain	11201-11250	50	50												
	SEMAF	11748-11974	227	75	152											
Buffet	German	11501-11511	11			11										
	France	11512-11539	28		4	24										
	SEMAF	11540-11566	27	27												
	○ Spain	11567-11578	(12)	(12)												
Total AC Car		(825) 786	(302) 263	171	190	97			2	63						
○ MBB Power Car	14145-14217	72			72											
// SEMAF +15 (1995)	17001-17042	(56) 41	12	29												
2nd	SEMAF	10611-10889 13205-15520	596	30	21	321	135	68	21							
	Rumania	112901-112965 112047-112423	83			72	11									
	Suburban	114000-114075 112801-112875	141			141										
	German	10521-10605	15					15								
3rd	SEMAF	12231-13347	419		68	174	164	13								
	Rumania	112001-112430	276			133	143									
	Rumania Suburban	112601-112769 113002-113285	432			432										
	German	12511-12621	21					21								
Suburban	7601-7695 7802-7925	199			199											
	with Driver's C	7501-7560	45			45										
Luggage	14032-14050 14430-14645	211			158	51										2
Refrigerator	19927-19931 19933-19940 19942-19945 119985	16			12						4					
Total		2567	42	118	1759	504	117	21		4						2

○: Maintenance by Mahmoud Abdel Salam Co.

Appendix 3.11

Table 3.11.7 Transition Number on Book [Passenger Car (1)]

Type	Manu- facturer	Series Number	Number on Book as of Jan. 1									
			1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
WL	H	11001-050	44	43	43	43	43	43	43	43	43	43
	G	11051-110	60	60	60	60	60	60	60	60	60	60
	Sp	11111-141	-	-	-	-	-	-	-	-	-	31
CB	Sp	11340-348	-	-	-	-	-	-	-	-	-	7
	G	11328-339	12	12	12	12	12	12	12	12	12	12
1st	H	11301-327	20	20	20	21	21	21	22	22	22	22
	G	11401-422	21	21	21	21	21	21	21	21	21	21
	F	11423-464	42	42	42	42	42	41	41	41	41	41
	Sp	11350-392	-	-	-	-	-	-	-	-	43	43
	SEM	11465-484	-	-	-	-	-	-	-	-	5	20
	SEM (Sp)	11485-494	-	-	-	-	-	-	-	-	-	10
2nd	G	11601-677	70	70	70	70	68	66	66	66	66	65
	F	11678-747	70	69	69	68	68	68	68	68	68	68
	Sp	11201-250	-	-	-	-	-	-	-	8	50	50
	SEM	11748-974	-	96	120	139	152	161	205	223	227	227
Buffet	G	11501-511	11	11	11	11	11	11	11	11	11	11
	F	11512-539	28	28	28	28	28	28	28	28	28	28
	SEM	11540-566	-	-	-	-	-	8	27	27	27	27
Total AC Car			378	472	496	515	526	540	604	630	724	786

Remarks : H: Hungary
 G: Germany
 Sp: Spain
 F: France
 SEM: SEMAF

Appendix 3.11

Table 3.11.7 Transition Number on Book [Passenger Car (2)]

Type	Manu- facturer	Series Number	Number on Book as of Jan. 1									
			1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Power Car	MBB	14145-217	72	72	72	72	72	72	72	72	72	72
	SEM	17001-042	1	5	30	30	30	29	31	31	31	41
2nd	SEM	10611-889	741	768	751	745	734	598	597	607	606	596
		13205-15520										
	Ru	112901-965						88	88	88	83	83
		112047-473										
	G	11521-605						68	54	51	45	15
	Sub	114000-075						149	149	148	148	148
112801-875												
3rd	SEM	12231-13347	1102	1063	1031	1014	995	469	455	430	422	419
	Ru	112001-430						376	373	361	276	276
		12511-621						93	64	53	50	21
	Ru	112601-769	450	450	443	443	442	441	441	440	438	432
	Sub	113002-285										
	Sub	7601-7695	212	206	207	207	207	202	200	200	199	199
		7802-7925										
	w/Driver C	7501-7560	56	56	55	55	55	54	50	49	47	45
Luggage		14032-050	243	236	227	222	218	218	216	216	213	211
		14430-645										
Refri- gerator		19927-931						18	18	18	16	16
		19933-940										
		19942-945										
		19985										
Others			10	9	3	3	3	-	-	-	-	-
Total Normal Car			3036	3004	2967	2939	2904	2873	2805	2759	2641	2567
Total (Excluding Power Car, Luggage Car and Refrigerator Car)			2720	2691	2638	2717	2584	2536	2468	2422	2309	2227

Appendix 3.11

Table 3.11.8 Particulars of Freight car

Type	Series No.	Age 31-12- 1995	No. on Book 1-1-1995	Tare Weight (t)	Max. Loading Weight (t)	Length (m)	No. of With air brake	Cars * Without air brake	Availa- bility July, 1994
Open									
Iron	75002/76519	1-25	842	23.00	65	10.460	842		70.94
Coal (High Side)	77001/77450	6-15	409	24.00	50	13.000	409		84.63
Normal	51000/57000/59400	11-35	714	19.30	20/40	12.580		714	
Phosphate	59501/59790	6-10	290	21.20	40	13.000	290		90.80
Phosphate (Amsted)	22001/22150	1-10	360	19.30	50	13.000	360		90.80
Sugar Cane ***	32500/32799	1-10	400	7.00	10	8.110		400	100.00
Tipper (High Dam)	92001/92141	31-35	88	20.00	50	11.006		88	
Hopper (Pebbles)	90000/92820 25001/25200	1-45	1,000	20.00	40	11.006	500	500	86.61
Hopper (Iron)	90511/90700	31-35	39	20.00	50	9.158		39	64.51
4 wheels	19511/19525		**		20				
Coal	23001/23250	1-5	249	24.00	50	13.000	150	99	84.63
Total			4,391				2,551	1,840	
Flat									
Track Use	40800/40900/41122 41411/46001/46050	1-30	509	23.00	50	19.200	189	320	86.24
Various Materials	40000/41000/42000 45000/72000/72100 17686/17885	1-50	834	22.00 15.70	20/80 75/40 20	13.510 14.810	200	634	86.24
Renew	17651/17685		**		20				
Container	43001/43100	1-10	100	25.00	60	19.760	100		88.00
Flat	72101/72359	1-10	459	18.40	30	14.810		459	
Total			1,902				489	1,413	
Covered									
Italian	93000/93499	21-30	447	25.00	65	15.666	447		64.51
Hopper (Wheat)	93500/93849	11-15	342	28.00	65	16.000	342		64.51
SEMAF	94001/94745	6-15	729	22.80	50	15.698	159	570	64.51
Sheet-Iron	20001/20140	1-10	185	20.35	50	15.700	185		
Hopper (Grain)	21001/21134	1-5	133	28.00	65	16.000	133		64.51
Animal	14800/14999	1-10	199	23.00	30	15.700	199		90.45
Closed	67000/68000 69000/70531	11-50	1,430	22.80	40	15.698	440	990	87.17
Vegetable	70407/70513	31-45	8	22.80	30/40	15.698		8	
Closed	30021/30282 68002/68050	46-50	35	12.3/18.4	30/35	11.29 /11.315		35	
Animal (old)	14557/14705	36-45	12	20.00	40	16.465			
Closed	39701		**		35				
Phosphate	24000/24373	1-5	221		65				90.80
Total			3,741				1,905	1,603	
Brake Van									
Brake Van	18000	16-30	90	40.00	40	10.800	90		66.30
Brake Van	118000	6-50	260	40.00	40	10.800	260		
Brake Van	29001/29025	1-5	25	40.00	40	10.800	25		
Brake Van	29501/29525	1-5	25	40.00	40	10.800	25		
Other Type			**						
Total			400				400	0	
Tank Car									
Various Types	85000/86000/87000 89000/95000/96000 87000/98000/28000	1-50	2,002	25.00	38/40	13.679	855	1,147	86.29
Total			2,002				855	1,147	
Crane Car									
German		1-5	5		100				
Normal	19101/19105	16-40	15		40 60 80				
Finland	19000	6-15	16		15				
German	19701/19716	6-10	6		60				
Gum Tyre	19801/19805	6-10	5						
Total			47				0	0	

* Number is changing day by day

** Not enough information, may be, out of service

*** 4 Wheeler

Appendix 3.11

Table 3.11.9 Age-wise Freight Car (1)

	Series Number	Max. Loading Weight (t)	No. on Book	Age											
				1-5	10	15	20	25	30	35	40	45	50		
Open															
Iron	75002/76519	65	842	374		88	165	215							
Coal (High side)	77001/77450	50	409		74	335									
Normal	51000/57000/59400	20/40	714			17	604			93					
Phosphate	59501/59790	40	290		290										
Phosphate (Amsted)	22001/22150	50	360	330	30										
Sugar cane	32500/32799	10	400	100	300										
Tipper (High Dam)	92001/92141 90000/92820	50	88							88					
Hopper (Pebbles)	25001/25200	40	1000	222	139	226	91	212	26	60	15	9			
Hopper (Iron)	90511/90700	50	39							39					
4 wheels	19511/19525	20	7				7								
Coal	23001/23250	50	249	249											
Total			4398	1275	833	666	867	427	26	280	15	9			
Flat															
Track Use	40800/40900/ 41122/41411/ 46001/46050	50	509	50		273	91		95						
Various Materials	40000/41000/ 42000/45000/ 72000/72100/ 17686/17885	20/80 75/40 20	834	46	134	101	203		52	170	56	43	29		
Renew	17651/17685	20	22										22		
Container	43001/43100	60	100	26	74										
Flat	72101/72559	30	459	25	434										
Total			1924	147	642	374	294		147	170	56	65	29		
Covered															
Italian	93000/93499	65	447					44	403						
Wheat	93500/93849	65	342			342									
SEMAF	94001/94745	50	729		204	525									
Sheet-iron	20001/20140	50	185	115	70										
Hopper (Grain)	21001/21134	65	133	133											
Animal	14800/14999	30	199	35	164										
Closed	67000/68000 69000/70531	40	1430			127	257	289	624	97		34	2		
Vegetable	70407/70513	30/40	8							5		3			
Closed	30021/30282 68002/68050	30/35	35												35
Animal (old)	14557/14705	40	12									6	6		
Closed	39701	35	1							1					
Phosphate	24000/24373	65	221	221											
Total			3742	504	438	994	257	333	1027	103	6	43	37		

Appendix 3.11

Table 3.11.9 Age-wise Freight Car (2)

	Series Number	Max Loading Weight (t)	No. on Book	Age									
				1-5	10	15	20	25	30	35	40	45	50
<u>Brake Van</u>													
Brake Van	18000	40	90				7	79	4				
//	118000	40	260		7	213				6	1	18	15
//	29001/29025	40	25	25									
//	29501/29525	40	25	25									
Other Type			35									18	17
Total			435	50	7	213	7	79	4	6	1	36	32
<u>Tank Car</u>													
Various Types	85000/86000/ 87000/89000/ 95000/96000/ 97000/98000/ 28000	38/40	2002	168	276	928	326	109	141		19	3	32
<u>Crane Car</u>													
German	19101/19105	100	5	5									
Normal	19000	40 60 80	15				6	3	1	2	3		
Finland	19701/19716	15	16		4	12							
German	19601/19606	60	6		6								
Gum Tyre	19801/19805		5		5								
Total			47	5	15	12	6	3	1	2	3		

Appendix 3.11

Table 3.11.10 Transition Number on Book [Freight Car (I)]

Type	Series Number	Capacity (t)	Number on Book as of Jan. 1									
			1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
OPEN												
Iron Ore	75002-76519	65	849	795	790	774	771	733	733	733	825	842
(H. Side) Coal	77001-77450	50	585	583	582	570	550	421	414	414	414	409
(Amsted) Phosphate	22001-22050	50						50	50	50	150	225
(H.Dam) Tipper	92001-92141	50						90	89	89	88	88
(Hopper) Iron Ore	90511-90700	50						47	47	47	45	39
Coal	23001-23250	50	-	-	-	-	-	-	-	250	249	249
Phosphate	59501-59790	40	-	-	-	-	-	290	290	290	290	290
(Hopper) Pebbles	90000-92820	40	474	452	568	639	633	830	820	971	990	978
	25001-25165	40										
Normal	51000	40	434	387	387	387	386	723	723	723	721	718
	57000	20										
	59400	20										
Sugar Cane	32500-32799	10	-	-	-	-	300	300	345	400	400	400
4 Wheeler	19519-19525	20	1329	1001	884	439	7	7	7	7	7	7
Others		35/30	390	298	222	202	-	-	-	-	-	-
Sub-Total			4061	3516	3433	3011	2647	3491	3518	3974	4179	4245
FLAT												
Flat	40000-41000 -42000	140 /120	5	5	5	5	5	-	-	-	-	-
	45000-72000 -72100	80/ 75/40	381	459	475	502	484	811	803	802	799	798
	17686-17885	20	343	276	269	269	263	-	-	-	-	-
For Track	17651-17685	20	20	20	20	22	22	22	22	22	22	22
For Rail	40800-40900 -41122 41411-46001 -46050	50	542	532	527	516	512	478	478	526	520	511
Container	43001-43100	60	-	-	-	-	-	100	100	100	100	100
Flat	72101-72557	30	25	145	205	405	405	420	459	459	459	459
4 Wheeler			81	62	60	18	18	-	-	-	-	-
Sub-Total			1397	1499	1561	1737	1709	1831	1862	1909	1900	1890

Appendix 3-11

Table 3.11.10 Transition Number on Book [Freight Car (2)]

Type	Series Number	Capacity (t)	Number on Book as of Jan. 1										
			1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
BOX													
Italian	93000-93499	65							465	455	455	455	447
(Hopper) Corn	93500-93849	65	823	823	817	802	800		344	344	342	342	342
SEMAF	94001-94745	50	889	872	804	820	787	733	732	732	732	732	730
Amsted	20001-20140	50	-	-	-	-	-	-	140	140	140	140	140
(Hopper) Wheat	21001-21134	65	-	-	-	-	-	-	-	134	134	134	133
Box	67000-68000	40	2818	2750	2662	2606	2407	1468	1411	1436	1436	1434	
	69000-70531												
Vegetable	70407-70513	30/40	32	29	23	22	15	8	8	8	8	8	8
Box	30021-30282	30/35	139	131	124	121	37	36	36	35	35	35	
	68002-68050												
Animal	14800-14999	30	572	551	494	400	165	200	200	200	200	200	199
	14557-14705	40	82	32	18	17	13	14	12	12	12	12	12
Box	39701	35	-	-	-	-	-	-	1	1	1	1	1
Phosphate	24000-24373	65	-	-	-	-	-	-	-	-	-	-	221
Others			2925	2592	2374	31	31	-	-	-	-	-	-
Sub-Total			8310	7780	7316	4819	4255	3409	3503	3495	3495	3495	3702
BRAKE VAN													
Brake Van	18000	40	223	185	133	110	96	92	91	90	90	90	90
	118000	40	306	335	329	289	283	271	266	264	264	264	261
	29001-29025	40	-	-	-	-	-	-	25	25	25	25	25
	29501-29525	40	-	-	-	-	-	-	25	25	25	25	25
Others			127	103	85	43	43	38	35	35	35	35	35
Sub-Total			656	623	547	442	422	451	442	439	439	439	436
Freight Car Grand Total			14424	13418	12857	10009	9033	9182	9325	9817	10013	10273	10273
TANK													
Various Type		38/40	2106	2018	1975	1942	1897	1874	2019	2011	2004	2005	2005
CRANE CAR													
German	19101-19105	100	-	-	-	-	-	-	-	-	3	3	5
Normal	19000	80/60/40	29	15	15	15	15	15	15	15	15	15	15
Finland	19701-19716	15	16	16	16	16	16	16	16	16	16	16	16
German	19601-19606	60	6	6	6	6	6	6	6	6	6	6	6
Gum Tyre	19801-19805		5	5	5	5	5	5	5	5	5	5	5
Sub-Total			56	42	42	42	42	42	42	42	45	45	47
Total			16530	15406	14832	11951	10700	11086	11344	11878	12017	12278	12278

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 $\times 10^3$	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3001	F	F	224		1992	
3002	//	//	217	DB	//	
3003	//	//	219		//	
3004	//	//	242		//	
3005	//	//	249		//	
3006	//	//	232		//	
3007	//	//	213		//	
3008	//	//	217		//	
3009	//	//	239	F	//	
3010	//	//	173		//	
3011	//	//	216		//	
3012	//	//	170		1993	
3013	//	//	192		//	
3014	//	//	207	DB	//	
3015	//	//	195		//	
3016	//	K	1,047		1977	
3017	//	//	1,245	DB	//	
3018	//	//	1,032	K	//	
3019	//	//	1,145		//	
3020	//	-	1,133		//	SC 7-6-89
3021	//	BD	1,091		//	
3022	//	//	1,166		//	
3023	//	-	-		//	
3024	//	BD	1,155		//	
3025	//	//	956	DB	//	
3026	//	//	1,089		//	
3027	//	//	1,070	AZ	//	
3028	//	//	1,126		//	
3029	//	//	1,086		//	
3030	//	//	941		//	
3031	//	//	1,164	DB	//	
3032	//	//	1,249		//	
3033	//	//	1,237		//	
3034	//	//	1,105		//	
3035	//	//	986	BD	//	
3036	//	//	1,328		//	
3037	//	//	1,070	F	1978	
3038	//	//	1,193		//	
3039	//	//	1,192		//	
3040	//	//	1,180	F	//	
3041	//	//	1,129		//	
3042	//	//	1,304		//	
3043	//	-	-		//	SC 15-5-89
3044	//	BD	1,564	F	//	
3045	//	//	1,441	T	//	
3046	//	//	1,333		//	
3047	//	//	1,395		//	
3048	//	//	1,331	DB	//	
3049	//	//	1,353	//	//	
3050	//	//	1,412		//	
3051	//	//	1,186		1980	
3052	//	//	681		//	
3053	//	//	1,556	F	//	
3054	//	//	1,371	DB	//	
3055	//	//	1,376		//	
3056	//	//	1,284	F	//	
3057	//	//	1,347		//	
3058	//	//	1,424	DB	//	
3059	//	//	1,346		//	
3060	//	//	1,356		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ⁴	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3061	F	BD	1,533	DB	1980	
3062	//	//	1,287		//	
3063	//	//	932		//	
3064	//	//	1,435		//	
3065	//	//	1,312		//	
3066	//	//	1,372	AZ	//	
3067	//	//	1,444		//	
3068	//	//	1,372		//	
3069	//	//	1,423		//	
3070	//	//	1,408	F	//	
3071	//	//	1,489		//	
3072	//	//	1,452	DB	//	
3073	//	//	1,300		//	
3074	//	//	1,623		//	
3075	//	//	1,782		//	
3076	//	//	1,693		1981	
3077	//	//	1,556		//	
3078	//	//	1,572		//	
3079	//	//	1,564		//	
3080	P	F	1,631		//	
3081	//	//	2,045	DB	//	
3082	//	//	2,185		//	
3083	//	//	2,029		//	
3084	//	//	2,161	DB	//	
3085	//	//	1,848		1982	
3086	//	//	1,980		//	
3087	//	//	1,842		//	
3088	//	//	2,048	F	//	
3089	//	//	2,137		//	
3090	//	//	2,001		//	
3091	//	//	2,007	T	1983	
3092	//	//	2,155		//	
3093	//	//	2,079		//	
3094	//	//	1,346		//	
3095	//	//	1,548	DB	1985	
3096	//	//	1,873		//	
3097	//	//	1,543		//	
3098	//	//	1,835	DB	//	
3099	//	//	1,654		//	
3100	//	//	1,362		//	
3101	//	//	1,862		//	
3102	//	//	1,815	DB	//	
3103	//	//	1,582		//	
3104	//	//	1,745		//	
3105	//	//	1,587		//	
3106	//	//	1,327	H	//	
3107	//	//	1,820		//	
3108	//	//	1,486		//	
3109	//	//	1,743		//	
3110	//	//	1,888		//	
3111	//	//	1,508		//	
3112	//	//	1,876		//	
3113	//	//	1,759	F	//	
3114	//	//	1,886		//	
3115	//	//	1,497		//	
3116	//	//	1,456		1988	
3117	//	//	25		//	
3118	//	//	1,734		//	
3119	//	//	1,434		//	
3120	F	BD	1,518		1981	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3121	F	BD	1,602		1981	
3122	//	//	1,234		//	
3123	//	//	1,771		//	
3124	//	//	1,628	DB	//	
3125	//	//	1,575	//	//	
3126	//	//	1,661		//	
3127	//	//	1,650	DB	//	
3128	//	//	1,597		//	
3129	//	//	1,501	DB	//	
3130	//	//	1,590		//	
3131	//	//	1,663	F	//	
3132	//	//	1,695		1982	
3133	//	//	1,790		//	
3134	//	//	1,899		//	
3135	//	//	1,553	AZ	//	
3136	//	//	1,855	DB	//	
3137	//	//	1,826		//	
3138	//	//	1,520	F	//	
3139	//	//	1,517		//	
3140	//	//	1,757		//	
3141	//	//	1,516		//	
3142	//	//	1,440		//	
3143	//	//	1,532		//	
3144	//	//	1,715		//	
3145	//	//	1,615	DB	//	
3146	//	//	1,797		//	
3147	//	//	1,702		//	
3148	//	//	1,715		//	
3149	//	//	1,828		//	
3150	//	//	1,813		//	
3151	P	F	1,584		1982	
3152	//	//	1,927	DB	//	
3153	//	//	1,911	F	//	
3154	//	//	1,941		//	
3155	//	//	1,633		//	
3156	//	//	2,032	DB	//	
3157	//	//	2,022	//	//	
3158	//	//	1,796		//	
3159	//	//	1,952		//	
3160	//	//	1,904		//	
3161	//	//	1,859		//	
3162	//	//	1,629		//	
3163	//	//	1,827		//	
3164	//	//	1,959		//	
3165	//	//	1,429		//	
3166	//	//	2,024	F	//	
3167	//	//	2,217		//	
3168	//	//	1,831		//	
3169	//	//	1,981		//	
3170	//	//	2,233		//	
3171	//	-	-		//	SC 14-4-86
3172	//	F	1,647		1988	
3173	//	//	1,616	F	//	
3174	//	//	1,733		//	
3175	//	//	1,620		//	
3176	//	//	1,639		//	
3177	//	//	1,666		//	
3178	//	//	1,751	DB	//	
3179	//	//	1,600	AZ	//	
3180	//	//	1,518		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ⁹	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3181	P	F	1,635		1988	
3182	//	//	1,601		//	
3183	//	//	1,266		1990	
3184	//	//	1,224		//	
3185	//	//	1,301		//	
3186	//	//	1,424	AZ	//	
3187	//	//	1,285		//	
3188	//	//	1,304		//	
3189	F	//	194		1993	
3190	//	//	176		//	
3191	//	//	184		//	
3192	//	//	121		//	
3193	//	//	129		//	
3194	//	//	151		//	
3195	//	//	145		//	
3196	//	//	146		//	
3197	//	//	136		//	
3198	//	//	150		1994	
3199	//	//	149		//	
3200	//	//	148		//	
3201	P	//	2,029		1983	
3202	//	//	2,090		//	
3203	//	//	1,681	AZ	//	
3204	//	//	2,156		//	
3205	//	//	2,164		//	
3206	//	//	2,114	DB	//	
3207	//	//	2,095	//	//	
3208	//	//	2,038	//	//	
3209	//	//	2,218		//	
3210	//	//	1,715		//	
3211	//	//	2,110		//	
3212	//	//	1,949		//	
3213	//	//	2,025		1984	
3214	//	-	-		//	SC 11-9-89
3215	//	F	2,161	DB	//	
3216	//	//	2,036	//	//	
3217	//	//	1,984		//	
3218	//	//	1,756		//	
3219	//	//	2,004		//	
3220	//	//	1,994	F	//	
3221	//	//	1,911		//	
3222	//	//	1,274	DB	//	
3223	//	//	192		//	
3224	//	//	1,322		//	
3225	//	//	1,199		//	
3226	//	//	928		//	
3227	//	//	1,104	DB	//	
3228	//	//	1,073	//	//	
3229	//	//	1,261		//	
3230	//	//	1,263		//	
3231	//	//	947	DB	//	
3232	//	//	1,020		//	
3233	//	//	1,169		//	
3234	//	//	899	DB	//	
3235	//	//	971		//	
3236	//	//	1,065	F	//	
3237	//	//	903		//	
3238	//	//	1,023		//	
3239	//	//	794	AZ	//	
3240	//	//	1,222	DB	//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 $\times 10^3$	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3241	F	K	976	DB	1976	
3242	//	//	1,430	//	//	
3243	//	//	1,406	Me	//	
3244	//	//	1,509	DB	//	
3245	//	//	1,515		//	
3246	//	//	1,306	DB	//	
3247	//	//	1,706		//	
3248	//	BD	1,787		//	
3249	//	//	1,741	DB	//	
3250	//	//	1,630		//	
3251	//	//	1,653		//	
3252	//	//	1,680	F	//	
3253	//	//	1,788		//	
3254	//	//	1,684		//	
3255	//	//	1,740	Tb	//	
3256	//	//	1,712		//	
3257	//	//	1,600		//	
3258	//	//	1,794		//	
3259	//	//	1,686	DB	//	
3260	//	-	-		//	SC 11-8-83
3261	//	BD	1,542		//	
3262	//	//	1,650	DB	//	
3263	//	//	1,707		//	
3264	//	//	1,653		1977	
3265	//	//	1,613		//	
3266	//	//	1,606	Me	//	
3267	//	//	1,676		//	
3268	//	//	1,764		//	
3269	//	//	1,693		//	
3270	//	//	1,738	F	//	
3271	//	Tb	818		1979	
3272	//	//	933		//	
3273	//	//	855		//	
3274	//	//	849		//	
3275	//	//	675	Tb	//	
3276	//	//	897		//	
3277	//	//	805		//	
3278	//	//	759		//	
3279	//	//	752		//	
3280	//	//	801	Tb	//	
3281	//	//	794	//	//	
3282	//	//	725		//	
3283	//	//	766		//	
3284	//	//	685		//	
3285	//	//	862		//	
3286	//	//	848		//	
3287	//	//	689		//	
3288	//	//	760		//	
3289	//	//	837		//	
3290	//	//	863	Tb	//	
3291	//	//	818		//	
3292	//	//	830	Tb	//	
3293	//	//	772		//	
3294	//	//	898		//	
3295	//	//	733		//	
3296	//	//	645	Tb	//	
3297	//	//	495		//	
3298	//	//	945		//	
3299	//	//	781		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3445	P	F	827		1984	
3446	//	//	1,223	DB	//	
3447	//	//	819	//	//	
3448	//	//	1,137	//	//	
3449	//	//	1,248		//	
3450	//	//	900	DB	//	
3451	//	//	1,124		//	
3452	//	//	730		//	
3453	//	//	95	DB	//	
3454	//	//	1,208		//	
3455	//	//	1,102		//	
3456	//	//	1,277		//	
3457	//	//	990	F	//	
3458	//	//	1,246		//	
3459	//	//	223		//	
3460	//	//	1,175	AZ	1985	
3461	//	//	930	DB	//	
3462	//	//	726	//	//	
3463	//	//	929		//	
3464	//	//	1,083		//	
3465	//	//	1,115		//	
3466	//	//	1,098		//	
3467	//	//	1,103	F	//	
3468	//	//	1,166		//	
3469	//	//	808	F	//	
3470	//	//	1,160		//	
3601	P	Mc	1,209		1982	
3602	//	Ma	3,738		//	
3603	//	//	457		1983	
3604	//	//	1,381	Ma	//	
3605	//	H	1,315		//	
3606	//	F	961		//	
3607	//	//	1,073		//	
3608	//	Ma	1,715		//	
3609	//	//	2,868		//	
3610	//	//	2,912	DB	//	
3611	//	F	1,300	//	//	
3612	//	Ma	1,305		//	
3613	//	H	1,182		//	
3614	//	Z	1,335		//	
3615	//	T	1,453		//	
3616	//	Z	1,418		//	
3617	//	T	1,681		//	
3618	//	//	1,542		//	
3619	//	F	1,181		//	
3620	//	T	1,842		//	
3621	//	H	1,249		//	
3622	//	Z	1,307		//	
3623	//	//	1,352	Z	//	
3624	//	//	1,076		//	
3625	//	//	1,376		//	
3626	//	F	1,186		//	
3627	//	H	967		//	
3628	//	T	1,480		//	
3629	//	//	1,470		//	
3630	//	F	1,200		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3821	P	T	2,379		1977	
3822	//	//	2,311		//	
3823	//	//	2,245		//	
3824	//	//	2,380		//	
3825	//	H	1,263		//	
3826	//	T	2,280		//	
3827	//	H	1,220		//	
3828	//	T	1,922		//	
3829	//	H	1,219		//	
3830	//	//	1,194	DB	//	
3831	//	//	1,217	H	//	
3832	//	-	-		//	SC 8-11-86
3833	//	H	1,504	H	1980	
3834	//	//	1,168		//	
3835	//	//	1,427	DB	//	
3836	//	//	1,356		//	
3837	//	//	1,352		//	
3838	//	//	1,442		//	
3839	//	//	1,563		//	
3840	//	//	1,487		//	
3841	//	//	1,389		//	
3842	//	//	1,423		//	
3843	//	Ma	1,222		//	
3844	//	KL	914		//	
3845	//	//	870		//	
3846	//	T	1,456	AZ	//	
3847	F	F	911		//	
3848	//	//	936	DB	//	
3849	//	//	948		//	
3850	//	//	665		//	
3851	P	KL	930		//	
3852	//	T	1,755		//	
3853	//	//	2,012		//	
3854	//	//	1,690		//	
3855	//	//	1,685		//	
3856	//	F	861		//	
3857	//	KL	910		//	
3858	//	H	1,433		//	
3859	//	KL	955		//	
3860	//	F	840		//	
3861	//	H	1,241		//	
3862	//	KL	1,034		//	
3863	//	H	1,388		//	
3864	//	T	1,740	AZ	//	
3865	//	A	1,287		//	
3866	//	T	1,870	T	//	
3867	//	//	2,078		//	
3868	//	//	1,469		//	
3869	//	H	1,144		//	
3870	//	-	-		//	SC 2-4-83
3871	//	H	1,590	AZ	//	
3872	//	//	1,372		//	
3873	//	//	1,423	H	//	
3874	//	//	1,379		//	
3875	//	-	1,497	DB	//	SC12-1-94
3876	//	H	-		//	
3877	//	//	1,159		//	
3878	//	//	1,192		//	
3879	//	KL	1,052		//	
3880	//	F	1,358		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 $\times 10^3$	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3881	P	F	1,557		1980	
3882	//	//	1,545		//	
3883	//	//	1,417		//	
3884	//	//	1,261		//	
3885	//	//	1,469		//	
3886	//	H	1,432		//	
3887	//	F	1,055		//	
3888	//	H	1,396		//	
3889	F	F	1,262		//	
3890	//	//	1,213		//	
3891	//	H	1,381		//	
3892	//	F	1,495		//	
3893	//	//	1,383		//	
3894	//	KL	104		//	
3895	//	F	1,572		//	
3896	//	//	1,412	F	//	
3897	//	//	1,612		//	
3898	//	//	1,324		1981	
3899	//	//	1,049		//	
3900	//	K	845		//	
3901	//	F	1,331	F	//	
3902	//	//	852	DB	//	
3903	//	//	1,291		//	
3904	//	//	1,414		//	
3905	//	//	1,277		//	
3906	//	//	682		//	
3907	//	//	1,432		//	
3908	//	K	902		//	
3909	//	F	1,431		//	
3910	//	//	1,363		//	
3911	P	//	1,346		//	
3912	//	K	823		//	
3913	//	F	1,356		//	
3914	//	K	718		//	
3915	//	//	612		//	
3916	//	Me	842	DB	//	
3917	//	H	1,278		//	
3918	//	Ma	1,566		1982	
3919	//	-	-		//	SC 10-5-89
3920	//	F	1,373		//	
3921	//	//	1,278		//	
3922	//	Z	1,607		//	
3923	//	K	795		//	
3924	//	F	1,289		//	
3925	//	//	1,352	DB	//	
3926	//	Ma	1,512		//	
3927	//	//	1,983	DB	//	
3928	//	F	1,292		//	
3929	//	//	1,290	DB	//	
3930	//	K	747	AZ	//	
3931	//	Ma	80	DB	//	
3932	//	Z	1,446		//	
3933	//	F	1,283		//	
3934	//	//	1,224		//	
3935	//	//	1,343		//	
3936	//	//	1,256		//	
3937	//	//	1,067		//	
3938	//	K	775		//	
3939	//	Z	1,375	DB	//	
3940	//	A	1,043	//	//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ⁹	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3941	P	A	995	A	1982	
3942	//	//	1,023		//	
3943	//	Z	1,533		//	
3944	//	A	1,103		//	
3945	//	Z	1,642		//	
3946	//	F	839		//	
3947	//	Me	1,338		//	
3948	//	H	1,209		//	
3949	//	//	1,623		//	
3950	//	K	564	DB	//	
3951	//	//	460		//	
3952	//	A	536		//	
3953	//	H	1,171		//	
3954	//	//	1,037		//	
3955	//	//	1,020		//	
3956	//	Ma	1,506	Ma	//	
3957	//	//	1,330		//	
3958	//	//	1,203	AZ	//	
3959	//	F	1,321	DB	//	
3960	//	//	953		//	
3961	//	//	971		//	
3962	//	Z	1,543		//	
3963	//	K	830		//	
3964	//	F	1,277		//	
3965	//	K	642		//	
3966	//	F	952		//	
3967	//	//	1,195	DB	//	
3968	//	//	1,203	F	//	
3969	//	A	1,014		//	
3970	//	//	811		//	
3971	//	F	1,371		//	
3972	//	//	1,458		//	
3973	//	Z	1,541	AZ	//	
3974	//	//	1,360		//	
3975	//	Me	1,461		//	
3976	//	//	1,184	DB	//	
3977	//	//	1,403	//	//	
3978	//	//	1,388		//	
3979	//	//	1,415	DB	//	
3980	//	Z	1,443		//	
3981	//	A	1,034		//	
3982	//	//	844		//	
3983	//	//	972		//	
3984	//	//	1,129		//	
3985	//	Ma	1,244		//	
3986	//	A	900		//	
3987	//	//	850		//	
3988	//	Me	1,454	DB	//	
3989	//	//	1,459		//	
3990	//	Z	1,378		//	
3991	//	//	1,718		//	
3992	//	Me	1,036	AZ	//	
3993	//	Z	1,536		//	
3994	//	//	1,580	Z	//	
3995	//	//	1,544		//	
3996	//	Me	1,329	DB	//	
3997	//	//	1,103		//	
3998	//	F	1,402		//	
3999	//	K	433		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3301	S	-	-			SC 31-12-90
3302	//	-	-			14-8-90
3303	//	-	-			14-10-90
3304	//	-	-			1-4-75
3305	//	-	-			30-1-91
3306	//	F	2,703		1960	
3307	//	-	-			14-8-90
3308	//	-	-			30-1-91
3309	//	F	2,848		1960	
3310	//	Z	2,852		//	
3311	//	F	2,797		//	
3312	//	Z	2,879		//	
3313	//	-	-			31-12-90
3314	//	-	-			2-9-92
3315	//	Z	2,537		1960	
3316	//	-	-			14-10-90
3317	//	-	-			16-3-69
3318	//	-	-			14-8-90
3319	//	Z	2,612		1961	
3320	//	F	2,927		//	
3321	//	-	-			30-1-91
3322	//	-	-			31-12-90
3323	//	-	-			30-1-91
3324	//	Z	2,872		1961	
3325	//	-	-			30-1-91
3326	//	-	-			20-1-89
3327	//	F	2,548		1961	
3328	//	-	-			31-12-90
3329	//	-	-			1-4-75
3330	//	-	-			25-9-86
3331	//	F	2,340	AZ		
3332	//	-	-			SC 2-9-92
3333	//	-	-			14-8-90
3334	//	-	-			30-1-91
3335	//	F	2,807	AZ		
3336	//	//	2,698	F		
3337	//	-	-			19-1-81
3338	//	F	1,634			
3339	//	-	-			31-12-90
3340	//	-	-			30-1-91
3341	//	F	2,988	Tb		
3342	//	//	1,888			
3343	//	Z	2,714	Z		
3344	//	-	-			18-8-90
3345	//	-	-			14-10-90
3346	//	F	2,682	F		
3347	//	-	-			2-9-92
3348	//	-	-			31-12-90
3349	//	-	-			31-12-90
3350	//	F	2,817			
3351	//	-	-			18-4-90
3352	//	F	2,447	A		
3353	//	-	-			31-12-90
3354	//	-	-			9-5-89
3355	//	Z	2,801	Z		
3356	//	F	2,723	Tb		
3357	//	-	-			31-12-90
3358	//	-	-			30-1-91
3359	//	A	2,422			
3360	//	-	-			30-1-91

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3361	S	-	-			SC 1-4-75
3362	//	F	1,303	K		
3363	//	//	1,312			
3364	//	A	1,412			
3365	//	F	1,152			
3366	//	-	-			30-1-91
3367	//	-	-			19-1-81
3368	//	F	1,288	Tb		
3369	//	-	-			18-8-90
3370	//	-	-			18-8-90
3371	//	-	-			30-1-90
3372	//	F	1,304			
3373	//	//	1,346	Z		
3374	//	-	-			25-9-86
3375	//	K	1,222			
3376	//	F	1,169			
3377	//	//	1,174			
3378	//	-	-			30-1-91
3379	//	F	1,285	F		
3380	//	K	1,290	K		
3381	//	-	-			14-1-81
3382	//	A	1,143	AZ		
3383	//	-	-			30-1-91
3384	//	F	1,201	Z		
3385	//	//	1,183			
3386	//	-	-			14-1-81
3387	//	F	1,356			
3388	//	//	1,147			
3389	//	-	-			30-1-91
3390	//	-	-			17-8-91
3391	//	K	1,062		1965	
3392	//	-	-		//	SC14-4-86
3393	//	-	-		//	14-1-81
3394	//	F	1,359		//	
3395	//	-	-		//	30-1-91
3396	//	-	-		//	5-11-81
3397	//	-	-		//	10-7-75
3398	//	F	1,132		//	
3399	//	-	-		//	4-10-90
3400	//	F	1,159		//	
3401	//	-	-		//	30-1-91
3402	//	F	1,318		//	
3403	//	-	-		//	10-7-75
3404	//	K	1,190	AZ	//	
3405	//	A	1,155		//	
3406	//	F	1,272		//	
3407	//	-	-		//	18-8-90
3408	//	-	-		//	30-1-91
3409	//	F	1,128		//	
3410	//	K	1,314	AZ	//	
3411	//	F	1,201		//	
3412	//	//	1,489	F	1973	
3413	//	A	1,551		//	
3414	//	//	1,546		//	
3415	//	//	1,407		//	
3416	//	//	1,430	F	//	
3417	//	-	-		//	1-11-81
3418	//	F	1,667		//	
3419	//	//	1,613	Tb	//	
3420	//	//	1,517		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 $\times 10^3$	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3531	S	F	1,824		1956	
3532	//	-	-		//	SC30-1-91
3533	//	-	-		//	14-10-90
3534	//	F	1,533		1960	
3535	//	//	1,418		//	
3536	//	Mc	1,706		//	
3537	//	-	-		//	30-1-91
3538	//	F	1,652		//	
3539	//	-	-		//	30-1-91
3540	//	-	-		//	14-10-90
3541	//	F	1,633		//	
3542	//	-	-		//	1-11-81
3543	//	Me	1,417		//	
3544	//	//	1,524	AZ	//	
3545	//	F	1,718		//	
3546	//	//	1,617		//	
3547	//	-	-		//	30-1-91
3548	//	F	1,470		//	
3701	S	Me	1,881	Me	1960	
3702	//	Z	2,102	Z	//	
3703	//	F	2,107		//	
3704	//	//	2,092		//	
3705	//	A	1,685		//	
3706	//	-	-		//	5-11-81
3707	//	-	-		//	27-1-90
3708	//	-	-		//	17-8-91
3709	//	Me	1,930	Me	//	
3710	//	F	1,962		//	
3711	//	K	1,804	AZ	//	
3712	//	-	-		//	SC1-4-75
3713	//	-	-		//	6-8-83
3714	//	-	-		//	17-8-91
3715	//	-	-		//	4-4-75
3716	//	F	1,823		//	
3717	//	Me	1,446	Me	//	
3718	//	Z	2,062		//	
3719	//	//	2,082		//	
3720	//	-	-		//	1-3-82
3721	//	T	2,171		//	
3722	//	Me	1,911	AZ	//	
3723	//	K	1,739		//	
3724	//	-	-		//	1-11-81
3725	//	K	2,069		//	
3726	//	Z	1,921	Z	//	
3727	//	F	1,929		//	
3728	//	A	1,711		//	
3729	//	Mc	2,095		//	
3730	//	A	1,753	AZ	//	
3731	//	-	-		//	17-8-91
3732	//	F	1,729		//	
3733	//	//	2,185		//	
3734	//	//	1,954		//	
3735	//	A	1,911		//	
3736	//	-	-		//	1-11-81
3737	//	-	-		//	14-10-90
3738	//	-	-		//	9-5-89
3739	//	-	-		//	28-6-83
3740	//	Z	2,085		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3741	S	Me	1,887			
3742	//	F	1,849	K		
3743	//	-	-			SC13-11-89
3744	//	-	-			14-10-90
3745	//	Z	1,934	AZ		
3746	//	//	1,847			
3747	//	A	1,872			
3748	//	K	1,879			
3749	//	-	-			14-10-90
3750	//	-	-			12-1-94
3751	//	-	-			11-8-83
3752	//	-	-			14-10-90
3753	//	-	-			14-10-90
3754	//	A	1,875	AZ		
3755	//	Ma	1,712			
3756	//	K	1,847			
3757	//	Me	1,671	AZ		
3758	//	-	-			28-6-83
3759	//	Z	1,958	Z		
3760	//	-	-			31-12-90
3761	//	F	1,783			
3762	//	Me	1,775	AZ		
3763	//	-	-			11-8-83
3764	//	F	1,730			
3765	//	//	1,595			
3766	//	-	-			1-4-75
3767	//	T	1,328	AZ		
3768	//	F	1,573	//		
3769	//	T	1,967			
3770	//	F	1,343			
3771	//	Me	1,818		1962	
3772	//	-	-		//	SC9-5-89
3773	//	Z	1,778		//	
3774	//	Me	1,837	AZ	//	
3775	//	-	-		//	14-11-89
3776	//	Me	1,947		//	
3777	//	-	-		//	27-1-90
3778	//	-	-		//	2-7-83
3779	//	-	-		//	9-5-89
3780	//	-	-		//	2-7-83
3781	//	Z	1,971		//	
3782	//	F	1,809		//	
3783	//	Me	1,908		//	
3784	//	Ma	1,746	AZ	//	
3785	//	-	-		//	2-7-83
3786	//	-	-		//	10-3-82
3787	//	F	1,758		//	
3788	//	-	-		//	21-7-83
3789	//	-	-		//	13-11-89
3790	//	Z	1,781	Z	//	
3791	//	F	1,845		//	
3792	//	Z	1,743		//	
3793	//	T	1,956	AZ	//	
3794	//	Z	1,802		//	
3795	//	-	-		//	1-4-75
3796	//	Z	896		//	
3797	//	F	1,704		//	

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg.to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
3551	S	T	457	AZ		
3552	//	Ma	448			
3553	//	T	479	AZ		
3554	//	//	465	//		
3555	//	//	589	//		
3556	//	K	532			
3557	//	T	410	AZ		
3558	//	//	500			
3559	//	Wardan	521			For training
3560	//	T	512			
3561	//	//	528	AZ		
3562	//	//	333	//		
3563	//	//	439	//		
3564	//	Ma	450	//		
3565	//	//	604	//		
3566	//	K	495	//		
3567	//	T	567	//		
3568	//	//	658			
3569	//	//	426			
3570	//	//	340	AZ		
3571	//	//	580			
3572	//	K	431			
3573	//	Ma	273	AZ		
3574	//	T	526	//		
3575	//	//	333	//		
3576	//	Ma	522	//		
3577	//	T	513	//		
3578	//	-	-			SC15-5-80
3579	//	T	465	AZ		
3580	//	Ma	282	//		
4501	S	T	350			
4502	//	//	326	AZ		
4503	//	//	146			
4504	//	//	99			
4505	//	//	133			
4506	//	//	90			
4507	//	//	299			
4508	//	//	187	AZ		
4509	//	//	370	//		
4510	//	//	198			
4511	//	//	228			
4512	//	-	-			SC27-7-80
4513	//	T	300			
4514	//	//	302			
4515	//	//	210			
4516	//	//	250			
4517	//	//	263			
4518	//	//	276			
4519	//	//	304			
4520	//	//	253			
4521	//	//	299	AZ		
4522	//	//	303			
4523	//	//	265			
4524	//	//	306	AZ		
4525	//	//	254			
4526	//	-	-			25-2-89

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
4301	S	-	-		1958	SC7-9-91
4302	//	-	-		//	5-8-90
4303	//	-	-		//	25-9-79
4304	//	-	-		//	12-4-90
4305	//	-	-		//	28-4-91
4306	//	-	-		//	28-4-91
4307	//	-	-		//	7-9-91
4308	//	-	-		//	5-8-90
4309	//	-	-		//	5-8-90
4310	//	Me	570		//	
4311	//	//	681		//	
4312	//	//	634	AZ	//	
4313	//	-	-		//	7-1-96
4314	//	F	510		//	
4315	//	-	-		//	7-1-96
4316	//	-	-		//	7-1-96
4317	//	-	-		//	7-1-96
4318	//	-	-		//	5-8-90
4319	//	F	368		//	
4320	//	-	-		//	5-8-90
4321	//	-	-		//	10-10-85
4322	//	-	-		//	17-4-90
4323	//	Me	351		//	
4324	//	-	-		//	7-9-91
4325	//	-	-		//	17-4-90
4326	//	-	-		//	8-6-94
4327	//	Me	508	AZ	//	
4328	//	//	664		//	
4329	//	Z	471		//	
4330	//	-	-		//	5-8-90
4331	//	-	-		1959	SC5-8-90
4332	//	-	-		//	15-10-85
4333	//	-	-		//	5-8-90
4334	//	Z	652		//	
4335	//	-	-		//	8-6-94
4336	//	-	-		//	7-1-96
4337	//	AG	715		//	
4338	//	-	-		//	8-6-94
4339	//	-	-		//	8-11-93
4340	//	-	-		//	7-9-91
4341	//	AG	640		//	
4342	//	-	-		//	29-5-80
4343	//	AG	645		//	
4344	//	-	-		//	28-4-91
4345	//	-	-		//	5-8-90
4346	//	-	-		//	7-1-96
4347	//	AG	533	AZ	//	
4348	//	Me	464		//	
4349	//	-	-		//	28-10-79
4350	//	-	-		//	2-2-83
4351	//	AG	549		//	
4352	//	//	674		//	
4353	//	-	-		//	5-8-90
4354	//	-	-		//	15-10-85
4355	//	-	-		//	31-3-87
4356	//	-	-		//	15-10-85
4357	//	AG	471	AZ	1963	
4358	//	Z	533	Z	//	
4359	//	-	-		//	25-10-80
4360	//	-	-		//	7-4-90

Table 3.11.11 History of Each Locomotive

No.	Service		Total Running km from beg. to 31-3-95 × 10 ³	Where as on 23-6-96	First Service Year	Remarks
	F.P.S	Area				
4361	S	-	-		1963	
4362	//	AG	477	AZ	//	SC5-8-90
4363	//	-	-		//	
4364	//	-	-		//	12-6-94
4365	//	Me	658		//	12-5-80
4366	//	-	-		//	
4367	//	-	-		//	12-6-94
4368	//	-	-		//	8-5-80
4369	//	-	-		//	7-1-96
4370	//	-	-		//	7-1-96
4371	//	AG	408		//	
4372	//	-	-		//	11-2-80
4373	//	-	-		//	17-4-90
4374	//	-	-		//	5-8-90
4375	//	Me	570	AZ	//	
4376	//	//	498		//	
4377	//	-	-		//	17-9-90
4378	//	-	-		//	14-6-94
4379	//	-	-		//	28-11-83
4380	//	-	-		//	27-3-83
4381	//	-	-		//	17-9-79
4382	//	-	-		//	28-4-91
4383	//	-	-		//	28-4-91
4384	//	-	-		//	5-8-90
4385	//	-	-		//	7-1-96
4386	//	AG	494		//	
4387	//	-	-		//	7-1-96
4388	//	-	-		//	5-8-90
4389	//	Me	527	AZ	//	
4390	//	AG	419		//	
4391	//	-	-		//	SC7-1-96
4392	//	Z	503		//	
4393	//	-	-		//	9-8-79

Remarks (Explanation of Abbreviation)

Service F.P.S. :

Service Area / Where :

F-Freight, P-Passenger, S-Shunting

A-Aswan, AG-Abu Ghatis, AZ-Abu Zabal, D237

BD-Bulak Dakroor, DB-Diesel Bulak, F-Farz

H-Hadra, K-Kabary, KL-Kopri Lamon, Ma-Mansura

Me-Menya, T-Tanta, Tb-Tebien, Z-Zagazig

Appendix 3.11

Table 3.11.12 Holding Number of DELs, Turbo Train and Metro EC

Type	Serries Number	1995	2002	2007	2012
AA22T	3001/3200	197	177	73	48
AA22T	3201/3221	20	20	20	0
JT22MC	3222/3240	19	19	19	0
AA22T	3241/3270	29	0	0	0
AA22T	3271/3299	29	29	0	0
JT22MC	3445/3470	26	26	26	0
Sub-Total (2475HP)		320	271	138	48

G22WAC	3601/3661	61	61	59	0
G22W	3801/3832	31	31	0	0
G22WAC	3833/3999	164	164	0	0
Sub-Total (1650HP)		256	256	59	0

G22W	3301/3411	0	0	0	0
G22W	3412/3444	31	0	0	0
G22W	3501/3548	0	0	0	0
G22W	3701/3797	0	0	0	0
Sub-Total (Old American)		31	0	0	0

Hungary	3551/3580	29	0	0	0
German	4501/4526	24	0	0	0
Hungary	4301/4393	0	0	0	0
Sub-Total		53	0	0	0

Turbo Train Set		3	3	0	0
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Metro EC	No.1	390	390	390	390
Metro EC	No.2	24	90	90	90

Appendix 3.11

Table 3.11.13 Holding Number of PCs

Type	Manufacturer	Series No.	1995	2002	2007	2012
WL	Hungarian	11001/11050	0	0	0	0
	German MBB	11051/11110	60	60	60	60
	Spain	11111/11141	31	31	31	31
CB	Spain	11340/11348	7	7	7	7
	German	11328/11339	12	12	12	12
1st	Hungarian	11301/11327	2	0	0	0
	German	11401/11422	21	21	21	0
	France	11423/11464	41	41	41	41
	Spain	11350/11392	43	43	43	43
	SEMAF	11465/11484	20	20	20	20
	SEMAF(Spain)	11485/11494	10	10	10	10
2nd	German	11601/11677	65	65	65	0
	France	11678/11747	68	68	68	68
	Spain	11201/11250	50	50	50	50
	SEMAF	11748/11974	227	227	227	227
Buffet	German	11501/11511	11	11	11	0
	France	11512/11539	28	28	28	28
	SEMAF	11540/11566	27	27	27	27
Total AC Car			723	721	721	624

Power Car	German	14154/14217	72	72	72	72
	SEMAF	17001/17042	41	41	41	41
2nd	SEMAF	10611/10889	596	596	575	507
		13205/15520				
	Rumania	112901/112965 112047/112423	83	83	83	83
	(Suburban)	114000/114075 112801/112875	141	141	141	141
	German	10521/10605	15	15	15	0
3rd	SEMAF	12231/13347	419	419	419	406
	Rumania	112001/112430	276	276	276	276
	Rumania	112601/112769 113002/113285	432	432	432	432
	German	12511/12621	21	21	21	0
1st	(Suburban)	1601/7695 7802/7925	199	199	199	199
	(with Driver's Cab)	7501/7560	45	45	45	45
Luggage		14032/14050 14430/14645	209	209	209	209
Total Normal Car			2,549	2,549	2,528	2,411

Appendix 3.11 Table 3.11.14 Holding Number of FCs

Type	Series No.	1995	2002	2007	2012
Open					
Iron	75002/76519	842	842	627	462
Coal (High Side)	77001/77450	409	409	409	409
Normal	51000/57000/59400	714	714	621	621
Phosphate	59501/59790	290	290	290	290
Phosphate (Amsted)	22001/22150	360	360	360	360
Sugar Cane	32500/32799	400	400	400	400
Tipper (High Dam)	92001/92141	88	88	0	0
Hopper (Pebbles)	90000/92820				
	25001/25200	991	976	916	890
Hopper (Iron)	90511/90700	39	39	0	0
4 wheels	19511/19525	0	0	0	0
Coal	23001/23250	249	249	249	249
Total		4,382	4,367	3,872	3,681
Flat					
Track Use	40800/40900/41122				
	41411/46001/46050	509	509	509	414
Various Materials	40000/41000/42000				
	45000/72000/72100	762	706	536	484
	17686/17885				
Renew	17651/17685	0	0	0	0
Container	43001/43100	100	100	100	100
	72101/72559	459	459	459	459
Total		1,830	1,774	1,604	1,457
Covered					
Italian	93000/93499	447	447	447	44
Hopper (Wheat)	93500/93849	342	342	342	342
SEMAF	94001/94745	729	729	729	729
Sheet-Iron	20001/20140	185	185	185	185
Hopper (Grain)	21001/21134	133	133	133	133
Animal	14800/14999	199	199	199	199
Closed	67000/68000				
	69000/70531	1,394	1,394	1,297	673
Vegetable	70407/70513	5	5	0	0
Closed	30021/30282				
	68002/68050	0	0	0	0
Animal (old)	14557/14705	6	0	0	0
Closed	39701	1	1	0	0
Phosphate	24000/24373	221	221	221	221
Total		3,662	3,656	3,553	2,526
Brake Van					
Brake Van	18000	90	90	90	86
Brake Van	118000	227	226	220	220
Brake Van	29001/29025	25	25	25	25
Brake Van	29501/29525	25	25	25	25
Other Type		0	0	0	0
Total		367	366	360	356
Tank Car					
Various Types	85000/86000/87000				
	89000/95000/96000	1,948	1,948	1,807	1,698
	87000/98000/28000				
Total		1,948	1,948	1,807	1,698
Crane Car					
German		5	5	5	5
Normal	19101/19105	15	12	10	9
Finland	19000	16	16	16	16
German	19701/19716	6	6	6	6
Gum Tyre	19801/19805	5	5	5	5
Total		47	44	42	41

Appendix 3. 11

Table 3.11.15 Number of Rolling Stock to be Procured

1. DEL and PC

(1) Without

	1995		1996 - 2002			2003 - 2007			2008 - 2012		
	A	B	A	B	C	A	B	C	A	B	C
DEL											
2475 HP	320	320	271	302	31	169	333	164	243	397	154
1650 HP	256	256	256	298	42	101	347	246	288	398	110
PC											
AC	710	710	710	925	215	925	1,073	148	987	1,230	243
Normal	2,513	2,513	2,513	3,166	653	3,145	3,690	545	3,609	4,246	637

(2) With Case I 10% Speed Up of Passenger Train

DEL											
2475 HP	320	271	271	274	3	141	301	160	211	361	150
1650 HP	256	232	256	269	13	72	313	241	254	360	106
PC											
AC	710	710	710	818	108	818	932	114	846	1,070	224
Normal	2,513	2,513	2,513	2,826	313	2,805	3,328	523	3,247	3,835	588

(3) With Case II 10% Speed Up of Passenger Train

DEL											
2475 HP	320	271	271	288	17	155	316	161	226	379	153
1650 HP	256	232	256	298	42	101	346	245	287	398	111
PC											
AC	710	710	710	907	197	907	1,030	123	944	1,181	237
Normal	2,513	2,513	2,513	3,098	585	3,077	3,633	556	3,552	4,181	629

2. FC

Open	4,832	4,832	4,367	4,367	-	3,782	6,000	2,218	5,809	9,000	3,191
Others	7,854	7,850	7,788	6,876	-	7,366	5,951	-	6,078	5,047	-
Total	12,686	12,682	12,155	11,243	-	11,148	11,951	2,218	11,887	14,047	3,191

Brake					3,280			-			-
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3. Metro

No.1 Line	(130)	(130)	(130)	(132)	(2)	(132)	(175)	(43)	(175)	(204)	(29)
No.2 Line	(4)	—	(15)	(24)	(9)	(24)	(35)	(11)	(35)	(42)	(7)
	24	—	90	144	54	144	210	66	210	252	42

- A : Existing Number
 B : Necessary Number
 C : Number of new procurement
 () : Number of Unit

Appendix 3.11

Table 3.11.16 Given Cost of Passenger and Freight Cars (10³LE)

		Group	Kind	Given	Cost	1995	Mean	
PC	New Procurement	1	1st AC	2,850.0	(1994)	3,021	2,196	
			2nd AC	850.0	(1990)	1,371		
		2	2nd Buffet AC	1,450.0	(1994)	1,537		
			3	2nd Buffet Normal	388.0	(1991)	531	556
				2nd Normal	96.0	(1982)	560	
		3rd Normal	98.9	(1982)	577			
	Remodelled (only carbody is reused)	4	Sleep AC	(mean)			1,820	
			Club AC Buffet AC	1,716.659	(1994)			
	5	1st AC	(mean)			1,878		
		2nd AC	1,722.115	(1994)				
FC	New Procurement	Low Side		205.8	(1992)	251		
		Box		225.8	(1992)	275		
		Flat		197.0	(1988)	472		
		Tank		147.0	(1985)	594		
		Brake Van						
		Auto Coupler		165.0	(1988)	311		
		Screw		135.0	(1989)	254		
		Brake fitting to no brake FC		31.0	(1994)	33		

Inflation rate :	From	To	Rate
	1982	1995	5.834
	1985	1995	4.039
	1988	1995	2.398
	1989	1995	1.884
	1990	1995	1.613
	1991	1995	1.368
	1992	1995	1.220
	1994	1995	1.060
	1995	2002	1.497
	1995	2007	1.956
	1995	2012	2.556

Appendix 3. 11

Table 3.11.17 Investment Plan of Rolling Stock and Maintenance

1. DEL and PC

(1) Without (1000 LE)

	1996 - 2002			2003 - 2007			2008 - 2012		
	Unit Cost	Number	Total	Unit Cost	Number	Total	Unit Cost	Number	Total
DEL									
2475 HP	11,350	31	351,850	18,705	164	3,067,620	27,960	154	4,305,840
1650 HP	7,610	42	319,620	12,460	246	3,065,160	18,530	110	2,038,300
PC									
AC	2,710	215	582,650	3,750	148	555,000	4,900	243	1,190,700
Normal	700	653	457,100	970	545	528,650	1,260	637	802,620
Total			1,711,220			7,216,430			8,337,460

(2) With Case I 10% Speed Up of Passenger Train

DEL									
2475 HP	11,350	3	34,050	18,705	160	2,992,800	27,960	150	4,194,000
1650 HP	7,610	13	98,930	12,460	241	3,002,860	18,530	106	1,964,180
PC									
AC	2,710	108	292,680	3,750	114	427,500	4,900	224	1,097,600
Normal	700	313	219,100	970	523	507,310	1,260	588	740,880
Total			644,760			6,930,470			7,996,660

(3) With Case II 10% Speed Up of Passenger Train

DEL									
2475 HP	11,350	17	192,950	18,705	161	3,011,505	27,960	153	4,277,880
1650 HP	7,610	42	319,620	12,460	245	3,052,700	18,530	111	2,056,830
PC									
AC	2,710	197	533,870	3,750	123	461,250	4,900	237	1,161,300
Normal	700	585	409,500	970	556	539,320	1,260	629	792,540
Total			1,455,940	970		7,064,775			8,288,550

2. FC

Open	313	-	-	433	2,218	960,394	566	3,191	1,806,106
Others									
Total						960,394			1,806,106
Brake	41	3,280	134,480	57	-	-	71	-	-

3. Metro

No.1 Line	22,100	2	44,200	30,560	43	1,314,080	39,930	29	1,157,970
No.2 Line	52,690	9	474,210	72,860	11	801,460	95,200	7	666,400
Total			518,410			2,115,540			1,824,370

4. Rolling Stock Maintenance

	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02
Overhead Crane			4,200	4,200	4,400	4,700	
Wheel Lathe		7,500					10,000
Total		7,500	4,200	4,200	4,400	4,700	10,000

Appendix 3.11

Table 3.11.18 Regular Maintenance for Main Line Locomotives

Group	Locomotive Series No.	Running km per month	Regular Maintenance								OH 4 years
			Daily	2,500 km 14~15 days	5,000 km Monthly	10,000 km 2 months	30,000 km 6 months	60,000 km 1 year	120,000 km 2 years	180,000 km 18 months	
1	3201	< 5,000	Daily	2,500 km 14~15 days	5,000 km Monthly	10,000 km 2 months	30,000 km 6 months	60,000 km 1 year	120,000 km 2 years	OH 4 years	
	3601										
2	3016	5,000 to 15,000	Daily	○	5,000 km 14~16 days	10,000 km Monthly	30,000 km 6 months	90,000 km 9 months	180,000 km 18 months	3 years	
	3271										
	3301										
	3362										
	3412										
	3430										
	3501										
	3701										
3801											
3833											
3	3241	> 15,000	Daily	○	X	10,000 km 14~15 days	120,000 km 6 months	240,000 km 1 year	2 years		
	3041										
Execution Place			Depot								Workshop

Remarks (1) 3271 : Heavy OH is carried out every 8 years
 (2) Others : Heavy OH is carried out every 12 years

Appendix 3.11

Table 3.11.19 Depot-wise Locomotive in Charge

July 1, 1996

Region or Line	Depot	2475HP		1650HP	Shunting	Total	
		Express Pass.	Freight	Normal Pass.			
Central	Farz	142	27	86	113	368	478
	Bulak Dakroor		110			110	
West Delta	Kabary		12	17	13	42	82
	Hadra			40		40	
Middle Delta	Tanta			41	47	88	
East Delta	Zagazig			25	25	50	
North Delta	Mansura			16	8	24	
Intermediate	Menya			17	26	43	
South	Aswan, Luxor			14	17	31	
Baharia	Tebien		25			25	29
Safaga			4			4	
Total		142	178	256	249	825	
		320					

Appendix 3.12.1 Organization Chart of Region, District & Zone and Personnel

Headquarters	Region	District	Site office (Zone)	Number of Staff in Zone					
				Chief Sup.	Super-visor	Fore-man	Sub Fore.	Gangs	
CAIRO	ASWAN	Aswan	Aswan	1	2	8	21	185	
			Kom Ombo	Total 217					
	Luxor	Isna	Luxor	1	2	26	17	128	
			Qena	Total 174					
	Safaga	N. Hammadi	Sohag	0	3	20	37	276	
			Asyut	Total 336					
	ASYUT	Sohag	Tima	Asyut	3	6	16	17	305
				Manfalut	Total 347				
	Minya	Mallawi	Minya	1	9	29	33	474	
			Maghagaha	Total 546					
	Beni Suef(S)	El West	Imbaba	Beni Suef(N)	2	2	21	54	381
				Khatatba	Total 458				
	CAIRO	Cairo	Imbaba	Cairo	0	2	8	0	137
				Qalyub	Total 147				
	Wahat	El Farz	Benha	Wahat	0	2	11	11	220
				S. El Kom	Total 244				
	Zafat	Tanta	Tanta	Zafat	0	1	15	18	343
				K. El Zayat	Total 377				
	M. Rouh	Damanhur	Alex.	M. Rouh	1	3	10	0	326
				K. El Dawar	Total 340				
ALEXANDRIA	Alex.	Alexandria	Alex.	1	5	13	0	404	
			Rashid	Total 423					
Desok	El Farz	Qabbari	Desok	1	3	16	27	259	
			Askala	Total 306					
El Max	El Farz	Ismailia	El Max	0	2	34	32	456	
			Qabbari	Total 524					
Matruh	Zagazig	Zagazig	Matruh	1	2	2	1	217	
			Zagazig	Total 223					
Zagazig	Abu Hammad	Abu Kebir	Zagazig	0	2	7	10	143	
			Belbeis	Total 162					
Ismailia	Ismailia	Port Said	Ismailia	12	44	236	278	4254	
			Fayid	Ground Total					
Suez	Mansoura	Sandob	Suez	0	2	7	10	143	
			Dekernrs	Total 162					
Mansoura	Sandob	Dekernrs	Mansoura	1	2	2	1	217	
			Sandob	Total 223					
Dekernrs	K. El Sheikh	Sherbin	Dekernrs	0	2	7	10	143	
			Sherbin	Total 162					
Domiat	K. El Sheikh	Sherbin	Domiat	12	44	236	278	4254	
			Domiat	Ground Total					
Ground Total				12	44	236	278	4254	

Appendix 3.12. 2 Track Structure and Maintenance Way on each Line/Segment (1)

No.	Name of Line (Station to Station)	Length of Line (km)	Track Length (km)	Single/ Double Track	Class of Line	Max. train speed	Major structure of Track	Track rehabilitaion works	Maintenance work
1	Cairo - Alexandria	19		4 tracks	1st	90/105	UIC 54, PC sleeper	Done	MTT
		190	456	Double		140	UIC 54, PC sleeper	Done	MTT
2	Cairo - El Sad El Ali	791		Double	1st	120/110	UIC 54, PC sleeper	Done	MTT
		107	1,679	Single		90/70/60	UIC 54, PC sleeper, S sleeper	partially on-going, after Aswan not yet	MTT
3	Benha - Port Said	113		Double	1st	90	UIC 54, PC sleeper	Done	MTT
		78	304	Single		90/70	UIC 54, PC sleeper	Done	MTT
4	Tanta - El Mansoura	54	108	Double	1st	90	UIC 54, PC sleeper	Done	MTT
5	El Malaha - Qabbari	15	30	Double	1st	70	UIC 54, PC sleeper	Done	MTT
6	Helwan - El Marg	41	83	Double	1st	100	UIC 54, PC sleeper	New Costruction	MTT
7	Nefisha - Suez	88	175	Single	2nd	55	UIC 54 & S 52, S sleeper	Most of all done, others remain	MTT
8	El Mansoura - Domiat	63	63	Single	2nd	90	UIC 54, PC sleeper	Done	MTT
9	Zagazig - Tanta	57	57	Single	2nd	70/60	UIC 54, S sleeper	Done	Manual
10	Imbaba - Itay El Baroud	120	120	Single	2nd	100/70	UIC 54, W sleeper, PC sleeper	Done	Imba.-Bar. MTT, other Manual
11	Sidi Gaber - Abu Qir	18	36	Double	2nd	70	UIC 54, W sleeper	Done	Manual
12	Qalyub - Menuf - Tanta	93	93	Single	2nd	70/55	S 52, S sleeper	Most of all not yet	Qaly.-Menuf MTT, other Manual
13	Ein Shams - Suez	129	129	Single	2nd	90	UIC 54, S sleeper	Done	MTT
14	El Wasta - Abu Keshah	61	61	Single	2nd	70	UIC 54, PC sleeper, S 47, S-sleeper	Partially done, other remain	Manual
15	El Marg - Shebin	21	21	Single	2nd	70/40	UIC 54, S sleeper	Done	Manual
16	El Mamoura - Rashid	66	66	Single	2nd	70	S 52 & S 47, S sleeper	Partially done, other on-going	Manual
17	El Mansoura - El Mataria	71	71	Single	2nd	60	UIC 54 & S 52, S sleeper	Done	Manual
18	Qalyub - Zagazig	63	63	Single	2nd	70	UIC 54, PC sleeper	Done	Manual
19	Zagazig - El Mansoura	69	69	Single	3rd	70	UIC 54, PC sleeper	Done	Manual
20	Abu Kebir - El Salthia	34	34	Single	3rd	70/60	S 47, S sleeper	Done	Manual

Appendix 3.12. 2 Track Structure and Maintenance Way on each Line/Segment (2)

No.	Name of Line (Station to Station)	Length of Line (km)	Track Length (km)	Single/ Double Track	Class of Line	Max. train speed	Major structure of Track	Track rehabilitaion works	Maintenance work
22	Faqus - El Samina	10	10	Single	3rd	70	S 47, S sleeper	Done	Manual
23	Menuf - Kafr El Zayat	49	49	Single	3rd	60	S 47, W sleeper	Not yet done	Manual
24	El Santa - Mahalet Rouh	19	19	Single	3rd	65	S 52 & S 47, S sleeper	Partially done, other on-going	Manual
25	Mahalet Rouh - Damanhur	74	74	Single	3rd	60	UIC 54, PC sleeper S 47, S sleeper	Most of all on-going, partially done	Manual
26	Benha - Menuf	25	25	Single	3rd	60	UIC 54, S sleeper	Done	Manual
27	Qabbari - Marsa Matruh	15		Double	3rd	90	UIC 54, S sleeper	Done	Manual
		279	309	Single	3rd	90	UIC 54, S sleeper	Done	Manual
28	Sherbin - Qelein	81	81	Single	3rd	70	S 52 & S 47, S sleeper	Partially done, most of all not yet	Manual
29	Bouseil - El Qassabi	29	29	Single	3rd	55/40	S 52, S sleeper	Done	Motob.- Qasabi MTT, other Manual
30	El Fayum - Sinnuris	12	12	Single	3rd	50	S 52, S sleeper	Done	Manual
31	Desouk - Motobus	27	27	Single	3rd	40	S 47, S sleeper	On-going	Manual
32	El Abbassia - Tura	20	20	Single	3rd	40	S 47, S sleeper	Not yet done	Manual
33	El Geish - El Maqharat	24	24	Single	3rd	40	S 46, W sleeper	Not yet done	Manual
34	Samala - El Saloum	260	260	Single	3rd		S 42, S sleeper	Not yet done	Manual
35	Tebbin - Baharia	346	346	Single	3rd		UIC 54, W sleeper	On-going	Manual
36	El Ithad - Qabbari	108	108	Single	3rd		UIC 54, S sleeper	Done	Manual
37	Beni Suef - El Lahun	25	25	Single	3rd	40	UIC 54, S sleeper	Most of all on-going, partially done	Manual
38	Sawesh - Abu El Sammad	12	12	Single	3rd	15	S 52, S sleeper S 46, W sleeper	Not yet done	Manual
39	El Gabal El Asfar	7	7	Single	3rd	40	S 46, W sleeper	-	-
40	Kafr Saad - Faraskour	3	3	Single	3rd	25	S 52, S sleeper	Done	Manual
41	Kafr Bateikh - Domietta Por	15	15	Single	3rd		S 47, S sleeper	-	-
42	Qena - Safaga	233	233	Single	3rd		UIC 60, PC sleeper	New construction	MTT
43	Qena - Abu Tartour	238	338	Single			UIC 60, PC sleeper	Under construction	

Appendix 3.12. 3 Number and Category of Personnel of Permanent Way

Category	Planned Number	Actual Number
High Management Officer	7	7
Engineer Staff	253	253
Administration Staff	73	73
Technical Staff	506	506
Secretary & Typist	796	796
Assistance to Secretary & Typist	297	297
Technical Staff for Workshop	368	368
Architectural Staff	1,657	1,657
Technical Staff (Transportation)	121	121
Office Labor & Ganger Assistants	6,642	5,000
Gardener	14	14
Ganger	6,615	4,600
Total	17,349	13,692

Appendix 4.2.4

SEA CONTAINER RAILWAY TRANSPORTATION PLAN (Summary) (Studied by Transmark & El Hawary)

1. Predicted Total Traffic Capture

20 Foot Equivalent Units		1990 (1000)	2000 (1000)
Ports to Cairo	LCL	6.1	18.0
	FCL	4.9	23.0
Ports to Upper Egypt	FCL	5.0	19.3
Upper Egypt to Ports	FCL	1.3	4.0
	Empties	3.7	15.3
Cairo to Ports	FCL	2.3	8.0
	Empties	8.7	33.0
Total		32.0	120.6

Note: FCL : Full Container Load, LCL : Less than Container Load

2. Ports and Terminals

Alexandria
Dikheila
Damietta
Port Said
Cairo (Inland Clearance Depot ICD)
Minya (year 2000 only)
Asyut
Qena
Aswan (year 2000 only)

3. Container Train Operation Plan

	1990	2000
Cairo - Alexandria	6	6
Cairo - Dikheila	5	9
Cairo - Damietta	5	4
Cairo - Port Said	2	4
Cairo - Upper Egypt (per week)	6	6

4. Container Train Formation

1 Locomotive + 1 Security Coach + 22 Container Flats : 1570 gross trailing tonnes

BASHTIL INLAND CONTAINER DEPOT

