

Unit 16: Drag Force [DATA] © 2011

Team Member 1

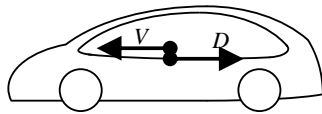


Fig. 1

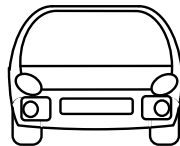


Fig. 2

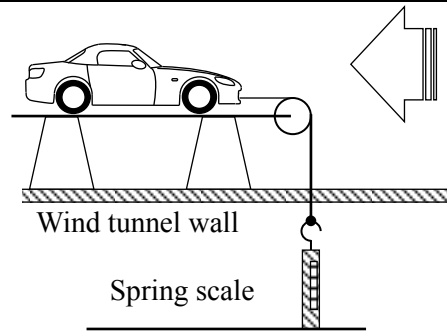


Fig. 3

Table 1. Relationship between flow velocity and drag force for Honda Fit

Flow velocity V m/s	8.25	9.75	13.4	16.9
Drag force D N	0.0524	0.0761	0.1376	0.2130

Table 2. Relationship between flow velocity and drag force for
Lamborghini Countach LP400

Flow velocity V m/s	5.5	7.8	9.2	12.3
Drag force D N	0.0258	0.0514	0.0680	0.1274

Table 3. Characteristic areas A [m^2]

Fit Honda 2007	Lamborghini Countach LP400
2.31	2.02

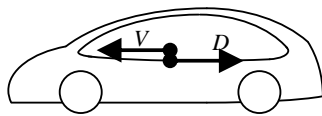


Fig. 1

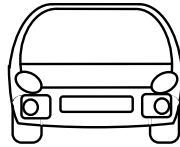


Fig. 2

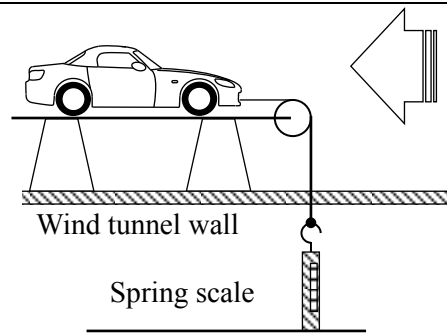


Fig. 3

Table 1. Relationship between flow velocity and drag force for
Volkswagen XL1 1-litter car (2009).

Flow velocity V m/s	6.33	10.5	15.4	25.8
Drag force D N	0.0155	0.0425	0.0915	0.257

Table 2. Relationship between flow velocity and drag force for Honda
Dream Solar Car (1996).

Flow velocity V m/s	5.12	11.4	14.8	22.9
Drag force D N	0.00721	0.0357	0.0602	0.144

Table 3. Characteristic areas A of XL1 and Dream. [m^2]

Saab 92	Volkswagen Type1 Beetle
1.99	2.20

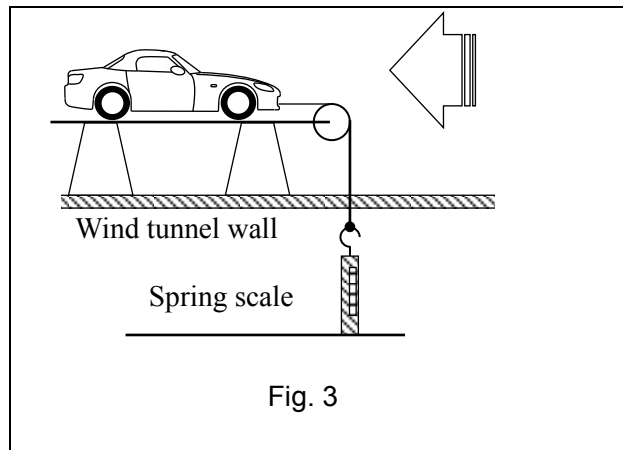
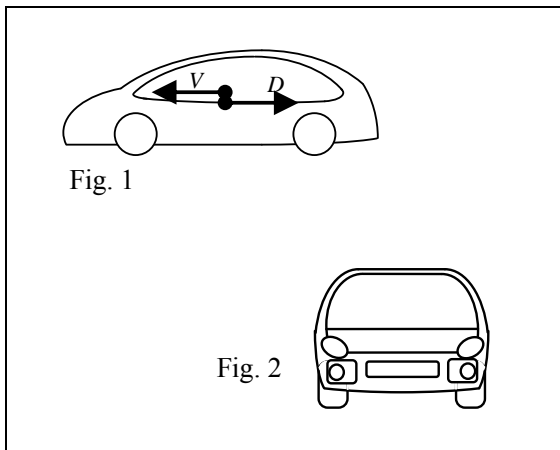


Table 1. Relationship between flow velocity and drag force for

Saab 92 (1949)

Flow velocity V m/s	7.41	12.5	18.3	23.9
Drag force D N	0.0403	0.115	0.246	0.419

Table 2. Relationship between flow velocity and drag force for

Volkswagen Type1 Beetle (1938).

Flow velocity V m/s	5.23	11.8	15.1	24.3
Drag force D N	0.0325	0.166	0.271	0.702

Table 3. Characteristic areas A of Saab and Beetle. [m^2]

Saab 92	Volkswagen Type1 Beetle
2.35	2.38

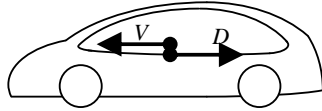


Fig. 1

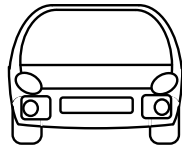


Fig. 2

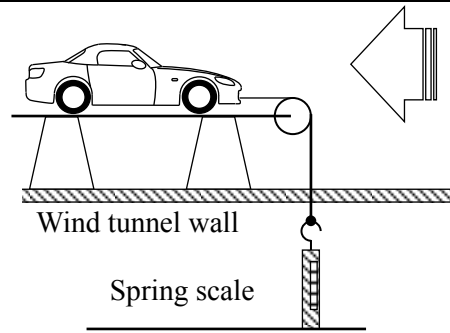


Fig. 3

Table 1. Relationship between flow velocity and drag force for Toyota Prius XW30 (2010).

Flow velocity V m/s	6.87	9.12	13.4	25.7
Drag force D N	0.0317	0.0559	0.121	0.444

Table 2. Relationship between flow velocity and drag force for Subaru Forester DBA-SHJ (2011).

Flow velocity V m/s	6.98	12.9	17.9	24.9
Drag force D N	0.0575	0.196	0.378	0.732

Table 3. Characteristic areas A of Prius and Forester. [m^2]

Prius XW30	Forester DBA-SHJ
2.58	2.98