

# Birleştirilmiş CAR/NAR/TRA Sertifikalı Roket Motor Listesi

NAR üyelerine, NAR Standardları ve Test Komitesi (S&T) NAR fırlatmalarında kullanılmak için sertifikalandırılmış tüm roket motorlarının bir listesini yayınlamıştır. NAR, Tripoli Rocketry Association (TRA), ve Kanada Roketçilik Kurumu (CAR) olarak, karşılıklı bir sertifika politikası yürürlüğe girdiğinden, tüm kuruluşlar tarafından sertifikalandırılmış motorlar bu listede yer almaktadır. Tüm kuruluşların üyeleri, motorunuz ülkenize nakliye için uygun görüldükten (ABD’de DOT sertifikası) sonra herhangi bir organizasyonda onaylanmış motorları kullanabilirler.

Bu liste, bir motorun belirli bir tarihte "süresinin dolduğunu" gösterebilir. Bu durum, genel kullanıma ilişkin söz konusu olan motorun sertifikasının belirtilen tarihte iptal edileceği anlamına gelir. Son kullanma tarihi motor sertifikasının iptal edilmesinden üç yıl sonra olarak kabul edildiğinden dolayı, önceden satın aldıkları motorları kullanmaları için pilotlara zaman tanınır. Son kullanma tarihi geçtikten sonra, motorlar artık kullanılmamalıdır. Bu bağlamda bir motor süresinin dolduğu şeklinde listelendikten sonra, aynı tipteki yeni imal edilmiş motorlarda otomatik olarak kullanım için onaylanmamış sayılırlar. Sertifikasyon için yeniden test edilecekler ve ayrı ayrı listelenecekler.

NAR sertifikalı motorların listesindeki eklemeler, silme işlemleri ve değişiklikler kullanıma girdikçe NAR bültenlerinde yayınlanacaktır. Ayrıca, aşağıdaki Web sitesinde elektronik olarak da yayınlanacaktır:

NAR Web site [nar.org](http://nar.org)

Yarışma Direktörleri gibi, NAR sertifikalı motorların en yeni listesini isteyen kişiler S&T Sekreteri ile temasa geçebilir:

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Ayrıca, sorular S&T Başkanlığına yönlendirilebilir:

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NAR S&T tarafından test edilmeyen motorlarla ilgili sorular aşağıdaki adreslere yönlendirilmelidir:

- TRA: Alan Whitmore, Başkan, Tripoli Rocketry Association Motor Test Komitesi
- CAR: Thomas Raithby, Başkan, Kanada Roketçilik Kurumu Motor Test Komitesi

Daha fazla bilgi isterseniz, S&T Motor Data Sheets from NARTS’den S&T Motor Veri Sayfalarının basılı kopyalarını sipariş ediniz. Bu rapor NAR S&T tarafından sertifikalandırılmış mevcut her bir motorun veri sayfalarından oluşmaktadır. Her veri sayfası irtifa simulasyonlu bilgisayar programlarında kullanılmak üzere test ateşleme değerleri ile birlikte bir itme kuvveti eğrisi, 32 veri noktasından fazla ölçülmüş ortalama itme kuvveti ve toplam itici kuvvetini içerir.

## Motor Tipi Anahtarı

- S - Tek kullanımlık motoru belirtir.
- R - Sadece üretici tarafından tedarik edilen kovan, kapaklar, nozül ve itici yakıtla sertifikalandırılmış tekrar doldurabilir bir motoru belirtir.
- H - Hibrit motoru belirtir.
- T - Tribrid motoru belirtir.
- ! - Sarı renkte, yüksek ışıklı kıvılcımlı bir motoru belirtir: daha fazla dikkat gerektirir.
- (a) - Sadece Animal donanımı ile kullanımında sertifikalandırılmıştır.
- (HP) - Toplam itici kuvveti ne olursa olsun yüksek bir güç motoru olarak bahsedilen motor.

## Gecikme Tipleri Anahtarı

- numara listesi - belirtilen gecikmelerin her biri için, motorlar yapılır.
- numaraA - motor bir gecikmeyle gelir. Ancak üreticinin Gecikme Ayar Aleti ile kısa devre yapılabilir.
- P - motor tapalıdır: paraşüt fırlatma barutu veya izleme dumanı yoktur.
- PS - motor tapalıdır, ancak izleme dumanı çıkarır.

## Gecikmeler hakkında notlar

Gecikmeler, değer üretici tarafından belirtilen değer aralığında olup olmadığını görmek için ölçülür. NFPA 1125 Kodu, talep edilen değer eksisi % 20'si ile artı % 20'si arasında, 1.5 saniyeden az ve 3 saniyeden büyük olmayacak şekilde aralığı belirtir. Örneğin, 10 saniye gecikmesi olduğunu iddia eden bir motor, 8 saniye veya 12 saniye gecikme veya arada herhangi bir gecikme olması durumunda NFPA gerekliliğini karşılar çünkü bu değerler % 20 içindedir.

4 saniye gecikmeli olduğu iddia edilen motor, ölçülen gecikme 3.2 - 4.8 saniye değil 2.5 - 5.5 saniye ise NFPA kodunu karşılar, çünkü 1.5 saniye 0.8'den büyük (4 saniyenin % 20'si).

20 saniye gecikmeyi geçtiği iddia edilen motor, ölçülen gecikme 16 - 24 saniye değil 17 - 23 saniye ise NFPA kodunu karşılar, çünkü 3 saniye maksimumdur ve 20 saniyenin %20' si 4 saniyedir.

Ayarlanabilir gecikmeler, en uzun gecikme (ayarlanmamış) kullanılarak ve üreticinin gecikme ayar aleti (DAT) kullanılarak oluşturulan daha kısa gecikmeler olarak test edilir. En uzun gecikmenin ölçülen değerleri ve ayarlanan gecikmelerin her birinin izin verilen aralık dahilinde olması durumunda motor, NFPA gereksinimini karşılar. Örneğin, 10 saniye ayarlanmamış gecikmeli bir motorda, 3, 5 ve 7 saniye kaldırma ayarlı bir DAT kullanarak ölçülen değerler bu aralıklar dahilindeyse motor NFPA 1125 gerekliliğini karşılayacaktır:

| DAT Ayarı     | Beklenen Gecikme | Geçiş Değeri | Yöntem |
|---------------|------------------|--------------|--------|
| Kullanılmıyor | 10               | 8 - 12       | %20    |
| -3            | 7                | 5.6 - 8.4    | %20    |
| -5            | 5                | 3.5 - 6.5    | 1.5    |
| -7            | 3                | 1.5 - 4.5    | 1.5    |

Dikkate alınması gereken bir diğer husus da kompozit motorlardaki gecikmelerin irtifa tarafından etkilenebileceğidir. NFPA 1125 Kodu, testin deniz seviyesinde yapılmasını gerektirir, ancak hem NAR S&T hem de Tripoli Motor Test Komitesi tarafından gerçekleştirilen deneyler, fırlatma irtifası binlerce feet yüksekliğe çıktığı için kompozit motor gecikmelerinin daha yavaş yanabileceğini göstermektedir. Dolayısıyla, bir motorun gecikmeleri NFPA gereksinimlerini karşılasa bile, 5000 feet yüksekliğe fırlatılan bir roket için görülen gerçek gecikme daha uzun olabilir.

## Üretici Kısaltmaları Anahtarı

- Aerotech - AeroTech, ISP, or Dr Rocket
- Alpha - Alpha Hybrid Rocketry, LLC
- Animal - Animal Motor Works
- Apogee - Apogee Components
- Cesaroni - Cesaroni Technology Inc.
- Contrail - Contrail Rockets LLC
- Estes - Estes Industries
- Gorilla - Gorilla Motor
- Hypertek - Hypertek
- Kosdon/AT - Kosdon by AeroTech
- Loki - Loki Research
- PML - Public Missiles Ltd.
- Propulsion - Propulsion Polymers
- Quest - Quest Aerospace
- RATTworks - R.A.T.T. Works Precision Rocket Motors
- Roadrunner - RoadRunner Rocketry
- SkyRipper - Sky Ripper Systems
- WCH - West Coast Hybrids

## İtici yakıt Ağırlık Kısaltmaları

cc - (santimetre küp) hibrit motordaki nitroz oksit hacmini belirtir.

## Yarışma Onaylı Kayıt Anahtarı

- Evet - NAR yarışmaları için izin verilmiş motor.
- BEKLEMEDE - Şu anda yarışmalar için izin verilmese de izin verilmesi bekleniyor.
- HPR - Yüksek güç motoru olduğundan yarışmalar için izin verilmez.
- Hayır - Yaygın olmadığından yarışmalar için izin verilmez.

Not: "Yarışma onaylı" NAR ABD Model Roket Spor Yönetmeliği uyarınca yapılan yarışmalarda kullanılmak üzere onaylandığı anlamına gelir. Bu ibare TARC veya FAI yarışmalarında kullanılmak üzere onaylanmış ile aynı değildir.

## Not

Herhangi bir sütundaki N/A - işareti sertifika kuruluşu tarafından sağlanmayan bilgiyi belirtir.

**Yayınlama:** 5 Şubat 2024

| Tip | Tanımı               | Üretici | Boyutları<br>(mm) | İtici kuvvet<br>(N-san) | İtici yakıt<br>Ağırlığı (g) | Test<br>Kurumu | Yarışma<br>Onaylı |
|-----|----------------------|---------|-------------------|-------------------------|-----------------------------|----------------|-------------------|
| S   | 1/8A.2 (MicroMaxx)-1 | Quest   | 6 x 26            | 0.135                   | 0.4                         | NAR            | Hayır             |

|                   |                           |                |                       |                             |                                 |                    |                       |
|-------------------|---------------------------|----------------|-----------------------|-----------------------------|---------------------------------|--------------------|-----------------------|
| S                 | 1/8A.5 (MicroMaxxII)-1,NE | Quest          | 6 x 26                | 0.22                        | 0.5                             | NAR                | Evet                  |
| <b>Tip Tanımı</b> |                           | <b>Üretici</b> | <b>Boyutları (mm)</b> | <b>İtici kuvvet (N-san)</b> | <b>İtici yakıt Ağırlığı (g)</b> | <b>Test Kurumu</b> | <b>Yarışma Onaylı</b> |
| S                 | 1/4A3T-3                  | Estes          | 13 x 45               | 0.62                        | 0.8                             | NAR                | Evet                  |
| <b>Tip Tanımı</b> |                           | <b>Üretici</b> | <b>Boyutları (mm)</b> | <b>İtici kuvvet (N-san)</b> | <b>İtici yakıt Ağırlığı (g)</b> | <b>Test Kurumu</b> | <b>Yarışma Onaylı</b> |
| S                 | 1/2A3T-2,4                | Estes          | 13 x 45               | 1.25                        | 2                               | NAR                | Evet                  |
| S                 | 1/2A6-2                   | Estes          | 18 x 70               | 1.25                        | 2.6                             | NAR                | Evet                  |
| <b>Tip Tanımı</b> |                           | <b>Üretici</b> | <b>Boyutları (mm)</b> | <b>İtici kuvvet (N-san)</b> | <b>İtici yakıt Ağırlığı (g)</b> | <b>Test Kurumu</b> | <b>Yarışma Onaylı</b> |
| S                 | A3T-2,4                   | Quest          | 13 x 55               | 1.71                        | 3.6                             | NAR                | Hayır                 |
| S                 | A3T-2,6                   | Estes          | 13 x 45               | 2.5                         | 3.3                             | NAR                | Evet                  |
| S                 | A3T-4                     | Estes          | 13 x 45               | 2.5                         | 3.3                             | NAR                | Evet                  |
| S                 | A3-4,6                    | Q-Jet/AT       | 18 x 80               | 2.5                         | 2.1                             | TRA                | Evet                  |
| S                 | A6-4                      | Quest          | 18 x 70               | 2.5                         | 3.5                             | NAR                | Hayır                 |
| S                 | A6-4                      | Quest          | 18 x 70               | 2.3                         | 3.5                             | NAR                | Hayır                 |
| S                 | A8-0                      | Estes          | 18 x 70               | 2.15                        | 3.84                            | NAR                | Evet                  |
| S                 | A8-3                      | Quest          | 18 x 70               | 1.86                        | 3.6                             | NAR                | Hayır                 |
| S                 | A8-3,5                    | Estes          | 18 x 70               | 2.5                         | 3.3                             | NAR                | Evet                  |
| S                 | A10T-0                    | Estes          | 13 x 45               | 1.88                        | 3.57                            | NAR                | Evet                  |
| S                 | A10T-3,P                  | Estes          | 13 x 45               | 2.5                         | 3.8                             | NAR                | Evet                  |
| <b>Tip Tanımı</b> |                           | <b>Üretici</b> | <b>Boyutları (mm)</b> | <b>İtici kuvvet (N-san)</b> | <b>İtici yakıt Ağırlığı (g)</b> | <b>Test Kurumu</b> | <b>Yarışma Onaylı</b> |
| S                 | B4-2,4                    | Estes          | 18 x 70               | 5                           | 6                               | NAR                | Evet                  |
| S                 | B4-4                      | Quest          | 18 x 70               | 3.84                        | 10.4                            | NAR                | Hayır                 |
| S                 | B4-4,6                    | Q-Jet/AT       | 18 x 80               | 4.86                        | 3.6                             | TRA                | Evet                  |
| S                 | B6-0                      | Estes          | 18 x 70               | 4.9                         | 5.6                             | NAR                | Evet                  |
| S                 | B6-0,4                    | Quest          | 18 x 70               | 5                           | 6.5                             | NAR                | Hayır                 |
| S                 | B6-2                      | Quest          | 18 x 70               | 5                           | 6.5                             | NAR                | Hayır                 |
| S                 | B6-2,4,6                  | Estes          | 18 x 70               | 5                           | 5.6                             | NAR                | Evet                  |
| S                 | B6-4                      | Quest          | 18 x 70               | 4.85                        | 6.5                             | NAR                | Hayır                 |
| S                 | B6W-4,6                   | Q-Jet/AT       | 18 x 70               | 4.865                       | 2.8                             | TRA                | Evet                  |
| <b>Tip Tanımı</b> |                           | <b>Üretici</b> | <b>Boyutları (mm)</b> | <b>İtici kuvvet (N-san)</b> | <b>İtici yakıt Ağırlığı (g)</b> | <b>Test Kurumu</b> | <b>Yarışma Onaylı</b> |
| S                 | C3.4-6                    | AeroTech       | 18 x 55               | 9                           | 5.2                             | NAR                | Hayır                 |
| R                 | C3.4-P                    | AeroTech       | 18 x 72               | 9.22                        | 5.2                             | NAR                | Evet                  |
| S                 | C5-3                      | Estes          | 18 x 70               | 7.79                        | 11                              | NAR                | Evet                  |
| S                 | C6-0                      | Quest          | 18 x 70               | 8.8                         | 11                              | NAR                | Hayır                 |
| S                 | C6-0,3,5,7                | Estes          | 18 x 70               | 9                           | 10.8                            | NAR                | Evet                  |
| S                 | C6-3,5                    | Quest          | 18 x 70               | 8.5                         | 11                              | NAR                | Hayır                 |
| S                 | C6-3,5                    | Quest          | 18 x 70               | 8.76                        | 12                              | NAR                | Hayır                 |
| S                 | C11-0,7                   | Estes          | 24 x 70               | 9                           | 12                              | NAR                | Evet                  |
| S                 | C11-3,5                   | Estes          | 24 x 70               | 9                           | 12                              | NAR                | Evet                  |

|            |               |                |                           |                                 |                                     |                        |                           |
|------------|---------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| S          | C12-4,6,8     | Q-Jet/AT       | 18 x 70                   | 9.8                             | 10.4                                | TRA                    | Evet                      |
| S          | C18W-4,6,8    | Q-Jet/AT       | 18 x 70                   | 9.8                             | 5.6                                 | TRA                    | Evet                      |
| <b>Tip</b> | <b>Tanımı</b> | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| R          | D2.3-P        | AeroTech       | 18 x 72                   | 17.21                           | 10.7                                | NAR                    | Evet                      |
| S          | D5-4,6        | Quest          | 20 x 96                   | 17.61                           | 24                                  | NAR                    | Hayır                     |
| S          | D5-P          | Quest          | 20 x 88                   | 19.6                            | 25                                  | NAR                    | Hayır                     |
| R          | D7-RC         | AeroTech       | 24 x 70                   | 20                              | 10.5                                | NAR                    | Evet                      |
| S          | D8-0,3,5      | Quest          | 24 x 70                   | 18.59                           | 22                                  | NAR                    | Hayır                     |
| R          | D9-4,7        | AeroTech       | 24 x 70                   | 20                              | 10.1                                | NAR                    | Evet                      |
| S          | D10-3,5,7     | AeroTech       | 18 x 70                   | 18.3                            | 9.8                                 | NAR                    | Hayır                     |
| S          | D10-3,5,7     | Apogee         | 18 x 70                   | 18.3                            | 9.8                                 | NAR                    | Hayır                     |
| S          | D11-P         | Estes          | 24 x 70                   | 18                              | 24.5                                | NAR                    | Hayır                     |
| S          | D12-0,3,5,7   | Estes          | 24 x 70                   | 17                              | 21.1                                | NAR                    | Evet                      |
| R          | D13-4,7,10    | AeroTech       | 18 x 70                   | 20                              | 9.8                                 | NAR                    | Evet                      |
| R          | D15-4,6       | AeroTech       | 24 x 70                   | 20                              | 8.9                                 | NAR                    | Evet                      |
| S          | D16FJ-4,6,8   | Q-Jet/AT       | 18 x 78.6                 | 12.4                            | 12.5                                | TRA                    | Evet                      |
| S          | D20W-4,6,8    | Q-Jet/AT       | 18 x 70                   | 13.8                            | 8.7                                 | TRA                    | Evet                      |
| S          | D21-4,7       | AeroTech       | 18 x 70                   | 20                              | 9.6                                 | NAR                    | Hayır                     |
| S          | D22W-4,7,10   | Q-Jet/AT       | 24 x 70                   | 19.33                           | 12                                  | TRA                    | Evet                      |
| R          | D24-4,7       | AeroTech       | 18 x 70                   | 18.5                            | 8.8                                 | NAR                    | Evet                      |
| <b>Tip</b> | <b>Tanımı</b> | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | E6-4,6,8      | AeroTech       | 24 x 70                   | 37.8                            | 22                                  | NAR                    | Hayır                     |
| S          | E6-4,6,8      | Apogee         | 24 x 70                   | 37.8                            | 22                                  | NAR                    | Evet                      |
| S          | E6-P          | AeroTech       | 24 x 70                   | 37.8                            | 22                                  | NAR                    | Evet                      |
| S          | E6-P          | Apogee         | 24 x 70                   | 37.8                            | 22                                  | NAR                    | Hayır                     |
| R          | E6-RC         | AeroTech       | 24 x 70                   | 40                              | 21.5                                | NAR                    | Evet                      |
| R          | E7-RC         | AeroTech       | 24 x 70                   | 30                              | 17.1                                | NAR                    | Evet                      |
| S          | E9-0          | Estes          | 24 x 95                   | 28.5                            | 35.8                                | NAR                    | Hayır                     |
| S          | E9-4,6,8,P    | Estes          | 24 x 95                   | 28.5                            | 35.8                                | NAR                    | Hayır                     |
| R          | E11J-3        | AeroTech       | 24 x 70                   | 31.7                            | 25                                  | NAR                    | Evet                      |
| S          | E12-0,4,6,8   | Estes          | 24 x 95                   | 27.24                           | 35.9                                | NAR                    | Evet                      |
| R          | E12J-RC       | AeroTech       | 24 x 70                   | 36                              | 30.3                                | NAR                    | Evet                      |
| S          | E15-4,7       | AeroTech       | 24 x 70                   | 35                              | 16.2                                | NAR                    | Hayır                     |
| S          | E15W-P        | AeroTech       | 24 x 70                   | 40                              | 20.1                                | NAR                    | Hayır                     |
| S          | E16-0,4,6,8   | Estes          | 29 x 114                  | 33.38                           | 40                                  | NAR                    | Evet                      |
| R          | E16-4,7       | AeroTech       | 29 x 124                  | 40                              | 19                                  | NAR                    | Evet                      |
| R          | E18-4,8       | AeroTech       | 24 x 70                   | 39                              | 20.7                                | NAR                    | Evet                      |
| S          | E20W-10       | AeroTech       | 24 x 65                   | 35                              | 16.2                                | NAR                    | Hayır                     |
| S          | E20W-4,7      | AeroTech       | 24 x 65                   | 35                              | 16.2                                | NAR                    | Evet                      |
| R          | E22SS-13A     | Cesaroni       | 24 x 69                   | 24.2                            | 13.4                                | CAR                    | Evet                      |
| R          | E23-5,8       | AeroTech       | 29 x 124                  | 37                              | 17.4                                | NAR                    | Evet                      |

|            |               |                |                           |                                 |                                     |                        |                           |
|------------|---------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| S          | E24C-4,7,10   | AeroTech       | 29 x 110                  | 36.3                            | 18.4                                | TRA                    | Evet                      |
| S          | E25R-4,7,P    | Roadrunner     | 29 x 76                   | 38.7                            | 20.6                                | TRA                    | Hayır                     |
| S          | E26W-4,7,10   | Q-Jet/AT       | 24 x 70                   | 27.85                           | 18.3                                | TRA                    | Evet                      |
| R          | E28-4,7       | AeroTech       | 24 x 70                   | 40                              | 18.4                                | NAR                    | Evet                      |
| S          | E30-4,7       | AeroTech       | 24 x 70                   | 33.6                            | 17.8                                | NAR                    | Evet                      |
| S          | E30-4,7       | Estes          | 24 x 70                   | 33.6                            | 17.8                                | NAR                    | Evet                      |
| R          | E31WT-15A     | Cesaroni       | 24 x 69                   | 26.1                            | 11.2                                | CAR                    | Evet                      |
| S          | E35W-5,8,11   | Q-Jet/AT       | 24 x 112.77               | 39.38                           | 25.4                                | TRA                    | Evet                      |
| R          | E75VM-17A     | Cesaroni       | 24 x 69                   | 24.8                            | 10.4                                | CAR                    | Evet                      |
| <b>Tip</b> | <b>Tanımı</b> | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | F10-4,6,8     | Apogee         | 29 x 93                   | 74.3                            | 40                                  | NAR                    | Evet                      |
| R          | F12-2,5       | AeroTech       | 24 x 70                   | 45                              | 30                                  | NAR                    | Evet                      |
| R          | F13-RC        | AeroTech       | 32 x 107                  | 63                              | 32.3                                | NAR                    | Evet                      |
| S          | F15-0,4,6,8   | Estes          | 29 x 114                  | 49.61                           | 60                                  | NAR                    | Evet                      |
| R          | F16-RC        | AeroTech       | 32 x 107                  | 80                              | 62.5                                | NAR                    | Evet                      |
| S          | F20-4,7       | AeroTech       | 29 x 83                   | 51.75                           | 30                                  | NAR                    | Evet                      |
| S          | F21W-4,6,8    | AeroTech       | 24 x 98                   | 55                              | 30                                  | TRA                    | Hayır                     |
| R          | F22-4,7       | AeroTech       | 29 x 124                  | 65                              | 46.3                                | NAR                    | Evet                      |
| S          | F23FJ-4,7     | AeroTech       | 29 x 73                   | 56                              | 32                                  | NAR                    | Hayır                     |
| S          | F23FJ-4,7     | AeroTech       | 29 x 83                   | 41.2                            | 30                                  | NAR                    | Evet                      |
| R!         | F23SK-RC      | AeroTech       | 32 x 107                  | 70                              | 37.8                                | NAR                    | Hayır                     |
| R          | F24-4,7       | AeroTech       | 24 x 70                   | 50                              | 19                                  | NAR                    | Evet                      |
| S          | F25W-4,6,9    | AeroTech       | 29 x 98                   | 80                              | 35.6                                | NAR                    | Evet                      |
| S          | F26FJ-6       | Estes          | 29 x 98                   | 62.2                            | 43.1                                | NAR                    | Evet                      |
| S          | F26FJ-6,9     | AeroTech       | 29 x 98                   | 62.2                            | 43.1                                | NAR                    | Evet                      |
| S          | F27R-4,8      | AeroTech       | 29 x 83                   | 49.6                            | 28.4                                | NAR                    | Evet                      |
| R          | F29IM-12A     | Cesaroni       | 29 x 98                   | 54.8                            | 30.9                                | CAR                    | Evet                      |
| S          | F30FJ-4,6,8   | AeroTech       | 24 x 90                   | 47                              | 31.2                                | NAR                    | Evet                      |
| R          | F30WH/LB-6A   | Cesaroni       | 24 x 133                  | 73.1                            | 40                                  | CAR                    | Evet                      |
| R          | F31CL-12A     | Cesaroni       | 29 x 98                   | 55.5                            | 25.7                                | CAR                    | Evet                      |
| R          | F32WH-12A     | Cesaroni       | 29 x 98                   | 52.8                            | 29.9                                | CAR                    | Evet                      |
| S          | F32T-4,6,8    | AeroTech       | 24 x 90                   | 56.9                            | 25.8                                | NAR                    | Evet                      |
| R          | F35W-5,8,11   | AeroTech       | 24 x 95                   | 57.1                            | 30                                  | NAR                    | Evet                      |
| S          | F35-6,10      | Roadrunner     | 29 x 112                  | 76.5                            | 40.1                                | NAR                    | Hayır                     |
| R          | F36SS-11A     | Cesaroni       | 29 x 98                   | 41.2                            | 29.5                                | CAR                    | Evet                      |
| R          | F36BS-14A     | Cesaroni       | 29 x 98                   | 51.5                            | 25.6                                | CAR                    | Evet                      |
| R          | F37-6,10,14   | AeroTech       | 29 x 99                   | 50                              | 28.2                                | NAR                    | Evet                      |
| R          | F39-3,6       | AeroTech       | 24 x 70                   | 50                              | 22.7                                | NAR                    | Evet                      |
| R          | F40-4,7,10    | AeroTech       | 29 x 124                  | 80                              | 40                                  | NAR                    | Evet                      |
| S          | F41W-5,8,11   | Q-Jet/AT       | 24 x 114.25               | 45.5                            | 30                                  | TRA                    | Hayır                     |
| S          | F41W-5,8,11   | Q-Jet/AT       | 24 x 113                  | 47.65                           | 27.1                                | TRA                    | Hayır                     |

|            |                 |                |                           |                                 |                                     |                        |                           |
|------------|-----------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| S          | F42T-4,8        | AeroTech       | 29 x 83                   | 52.9                            | 27                                  | NAR                    | Evet                      |
| S          | F44W-4,8        | AeroTech       | 24 x 70                   | 41.46                           | 19.7                                | NAR                    | Evet                      |
| S          | F45R-5,8,P      | Roadrunner     | 29 x 93                   | 62.3                            | 30                                  | TRA                    | Hayır                     |
| R!         | (HP) F50SK-13A  | Cesaroni       | 24 x 133                  | 59.7                            | 31.7                                | CAR                    | HPR                       |
| S          | F50T-4,6        | Estes          | 29 x 98                   | 80                              | 37.9                                | NAR                    | Evet                      |
| S          | F50-4,6,9       | AeroTech       | 29 x 98                   | 80                              | 37.9                                | NAR                    | Evet                      |
| S          | F50T-6          | PML            | 29 x 98                   | 80                              | 37.9                                | NAR                    | Hayır                     |
| R          | F51NT-10        | AeroTech       | 24 x 95                   | 55.11                           | 26.5                                | NAR                    | Evet                      |
| R          | F51CL-12A       | Cesaroni       | 24 x 133                  | 75                              | 33                                  | CAR                    | Evet                      |
| R          | F51BS-13A       | Cesaroni       | 24 x 101                  | 49.9                            | 22                                  | CAR                    | Evet                      |
| S          | F52C-5,8,12     | AeroTech       | 29 x 112                  | 66.2                            | 30                                  | TRA                    | Evet                      |
| R          | F52-6,8,11      | AeroTech       | 29 x 124                  | 78                              | 36.6                                | NAR                    | Evet                      |
| R          | F59WT-12A       | Cesaroni       | 29 x 98                   | 57                              | 26.1                                | CAR                    | Evet                      |
| S          | F60-4,7,10      | Roadrunner     | 29 x 112                  | 75.9                            | 38.1                                | NAR                    | Hayır                     |
| R          | F62FJ-10        | AeroTech       | 24 x 95                   | 47.57                           | 32.2                                | NAR                    | Evet                      |
| R          | F62T-S,M,L      | AeroTech       | 29 x 89                   | 51                              | 30.5                                | TRA                    | Evet                      |
| R          | F63R-10         | AeroTech       | 24 x 95                   | 49.5                            | 27.6                                | NAR                    | Evet                      |
| S          | F67W-4,6,9      | AeroTech       | 29 x 83                   | 61.12                           | 30                                  | NAR                    | Evet                      |
| S          | F67C-6,9,14     | AeroTech       | 29 x 112                  | 77.5                            | 36.8                                | TRA                    | Evet                      |
| R          | F70WT-14A       | Cesaroni       | 24 x 101                  | 52.9                            | 22.5                                | CAR                    | Evet                      |
| R          | F79SS-13A       | Cesaroni       | 24 x 133                  | 67.8                            | 40.1                                | CAR                    | Evet                      |
| R          | (HP) F85WT-15A  | Cesaroni       | 24 x 133                  | 73.6                            | 33.7                                | CAR                    | HPR                       |
| R          | (HP) F120VM-14A | Cesaroni       | 29 x 98                   | 56                              | 25.3                                | CAR                    | HPR                       |
| R          | (HP) F240VM-15A | Cesaroni       | 24 x 133                  | 68.3                            | 30.3                                | CAR                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>   | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | G8ST-P          | AeroTech       | 29 x 156                  | 129.99                          | 83.4                                | TRA                    | Evet                      |
| R          | G12-P           | AeroTech       | 32 x 107                  | 93                              | 51.1                                | NAR                    | Evet                      |
| S          | G12ST-P         | AeroTech       | 29 x 156                  | 143.97                          | 82                                  | TRA                    | Evet                      |
| R          | G25W-10A        | AeroTech       | 29 x 124                  | 109.48                          | 97                                  | TRA                    | Evet                      |
| R          | G33-5,7         | AeroTech       | 29 x 124                  | 100                             | 72.2                                | NAR                    | Hayır                     |
| R          | G33MY-9A        | Cesaroni       | 29 x 187                  | 143.1                           | 79.1                                | CAR                    | Evet                      |
| S          | G38FJ-4,7       | AeroTech       | 29 x 98                   | 94                              | 55                                  | NAR                    | Evet                      |
| S          | G39-6,10,P      | Roadrunner     | 29 x 140                  | 103                             | 58.6                                | TRA                    | Hayır                     |
| S          | G40-4,7         | Estes          | 29 x 124                  | 97.1                            | 55.1                                | NAR                    | Evet                      |
| S          | G40W-4,7        | PML            | 29 x 124                  | 120                             | 55.1                                | NAR                    | Hayır                     |
| S          | G40W-4,7,10     | AeroTech       | 29 x 124                  | 97.1                            | 55.1                                | NAR                    | Evet                      |
| S          | G45-6,10,P      | Roadrunner     | 29 x 140                  | 110                             | 58.6                                | TRA                    | Hayır                     |
| R          | G46-11A         | Cesaroni       | 38 x 127                  | 127.3                           | 62.5                                | CAR                    | Evet                      |
| R          | G50IM-15A       | Cesaroni       | 38 x 127                  | 150                             | 77.7                                | CAR                    | Evet                      |
| R          | G53FJ-5,7,10    | AeroTech       | 29 x 124                  | 90.9                            | 60                                  | NAR                    | Evet                      |
| R          | G54RL-12A       | Cesaroni       | 29 x 187                  | 159.1                           | 86.5                                | CAR                    | Evet                      |

|    |                  |            |          |          |       |     |       |
|----|------------------|------------|----------|----------|-------|-----|-------|
| R  | G54-6,10,14      | AeroTech   | 29 x 124 | 85       | 46    | NAR | Evet  |
| H  | (HP) G55-P       | WCH        | 38 x 308 | 150.6    | 142cc | CAR | HPR   |
| R  | G57CL-12A        | Cesaroni   | 29 x 142 | 107.8    | 51.4  | CAR | Evet  |
| R  | G58WH-13A        | Cesaroni   | 38 x 127 | 136.8    | 76.3  | CAR | Evet  |
| R  | G60-12A          | Cesaroni   | 38 x 127 | 139.4    | 78.4  | TRA | HPR   |
| R  | G60-14A          | Cesaroni   | 38 x 127 | 134.2    | 68.3  | CAR | HPR   |
| R  | G61W-S,M,L       | AeroTech   | 38 x 106 | 110.5    | 61.5  | TRA | Evet  |
| H  | (HP) G63-P       | SkyRipper  | 29 x 305 | 85       | 75cc  | TRA | HPR   |
| R  | G64-4,8,10       | AeroTech   | 29 x 124 | 120      | 62.5  | NAR | Evet  |
| R  | G65WH/LB-8A      | Cesaroni   | 24 x 228 | 144.3    | 80    | CAR | Evet  |
| R  | G66LR-15A        | Loki       | 38 x 120 | 134.457  | 72    | TRA | Evet  |
| R  | G67R-S,M         | AeroTech   | 38 x 106 | 110      | 60    | TRA | Evet  |
| R  | G68WH-13A        | Cesaroni   | 29 x 142 | 107.8    | 59.9  | CAR | Evet  |
| R  | G69-12A          | Cesaroni   | 38 x 127 | 128.8    | 62.5  | TRA | Evet  |
| R! | (HP) G69SK-14A   | Cesaroni   | 38 x 127 | 117.15   | 198   | TRA | HPR   |
| R! | (HP) G69SF-17A   | Loki       | 38 x 127 | 106.1    | 63    | TRA | HPR   |
| R  | G69N-P           | AeroTech   | 38 x 106 | 136.7    | 62.2  | NAR | Evet  |
| H  | (HP) G69-P       | SkyRipper  | 29 x 406 | 128      | 125cc | TRA | HPR   |
| R  | G70CT-18A        | Loki       | 38 x 120 | 119.0677 | 60    | TRA | Evet  |
| R  | G71R-4,7,10      | AeroTech   | 29 x 124 | 107      | 56.9  | NAR | Hayır |
| S! | G72DM-14A        | AeroTech   | 29 x 131 | 105      | 62.5  | TRA | Hayır |
| S  | G74W-4,6         | AeroTech   | 29 x 83  | 82.74    | 39.3  | NAR | Evet  |
| S! | (HP) G75M-13A    | AeroTech   | 29 x 131 | 115.15   | 66.8  | TRA | HPR   |
| S! | (HP) G75M-4,7,10 | AeroTech   | 29 x 124 | 120.39   | 66.8  | TRA | HPR   |
| R  | G75J-S,M         | AeroTech   | 29 x 194 | 135.6    | 104.3 | TRA | Evet  |
| R  | G76G-4,7,10      | AeroTech   | 29 x 124 | 115      | 60    | NAR | Evet  |
| S  | G77R-4,7,10      | AeroTech   | 29 x 146 | 102.9    | 58.1  | NAR | Evet  |
| R  | G77R-S,M         | AeroTech   | 29 x 150 | 105      | 58    | TRA | Evet  |
| R  | G78BS-15A        | Cesaroni   | 38 x 127 | 140.9    | 67    | TRA | Evet  |
| S  | G78G-4,7,10      | AeroTech   | 29 x 146 | 109.9    | 59.7  | NAR | Evet  |
| R  | G79SS-13A        | Cesaroni   | 38 x 127 | 129      | 100   | CAR | Evet  |
| S  | G79W-4,7,10      | AeroTech   | 29 x 146 | 108      | 60.1  | NAR | Evet  |
| R  | G79W-S.M.L       | AeroTech   | 29 x 150 | 108.6    | 62    | TRA | Evet  |
| S  | G80NT-14A        | AeroTech   | 29 x 128 | 132.17   | 62.5  | TRA | Evet  |
| R! | (HP) G80SK-14A   | Cesaroni   | 29 x 142 | 92.9     | 50    | CAR | HPR   |
| R  | G80LW-17A        | Loki       | 38 x 127 | 122.5    | 60    | TRA | Evet  |
| S  | G80T-4,7         | PML        | 29 x 124 | 120      | 56.9  | NAR | Hayır |
| S  | G80-4,7,10       | AeroTech   | 29 x 124 | 120      | 56.9  | NAR | Evet  |
| S  | G80-4,7,10       | Roadrunner | 29 x 140 | 105.7    | 54.7  | NAR | Hayır |
| S  | G80T-7,10        | Estes      | 29 x 128 | 136.6    | 62.5  | NAR | Evet  |
| S  | G80T-7,10,13     | AeroTech   | 29 x 128 | 136.6    | 62.5  | NAR | Evet  |
| R  | (HP) G82W-S,M,L  | Kosdon/AT  | 29 x 206 | 141      | 84    | TRA | HPR   |



|            |                   |                |                           |                                 |                                     |                        |                           |
|------------|-------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| R          | (HP) G83BS-14A    | Cesaroni       | 29 x 142                  | 107.4                           | 51.1                                | CAR                    | HPR                       |
| R          | (HP) G84GR-10A    | Cesaroni       | 24 x 228                  | 131                             | 77.3                                | CAR                    | HPR                       |
| R          | (HP) G88SS-11A    | Cesaroni       | 29 x 142                  | 84.3                            | 59                                  | CAR                    | HPR                       |
| R          | (HP) G94IB-18A    | Loki           | 38 x 120                  | 121.1148                        | 62                                  | TRA                    | HPR                       |
| R!         | (HP) G100SK-14A   | Cesaroni       | 24 x 228                  | 114.5                           | 63.3                                | CAR                    | HPR                       |
| H          | (HP) G100-P       | Contrail       | 38 x 407                  | 146                             | 140cc                               | TRA                    | HPR                       |
| R          | (HP) G104T-S,M,L  | AeroTech       | 29 x 125                  | 81.5                            | 43.9                                | TRA                    | HPR                       |
| R!         | (HP) G106SK-14A   | Cesaroni       | 29 x 187                  | 138.3                           | 75                                  | CAR                    | HPR                       |
| R          | (HP) G107WH-12A   | Cesaroni       | 24 x 228                  | 139.1                           | 75.7                                | CAR                    | HPR                       |
| R          | (HP) G115-13A     | Cesaroni       | 38 x 127                  | 140.6                           | 61.8                                | CAR                    | HPR                       |
| R          | (HP) G117WH-11A   | Cesaroni       | 24 x 228                  | 142.3                           | 79.1                                | CAR                    | HPR                       |
| R          | (HP) G118BS-15A   | Cesaroni       | 29 x 187                  | 159.1                           | 76.7                                | CAR                    | HPR                       |
| H          | (HP) G123-P       | Contrail       | 38 x 407                  | 142                             | 140cc                               | TRA                    | HPR                       |
| S          | (HP) G125T-14A    | AeroTech       | 29 x 127                  | 124.807                         | 62                                  | TRA                    | HPR                       |
| R          | (HP) G125RL-14A   | Cesaroni       | 29 x 187                  | 159.6                           | 81.9                                | CAR                    | HPR                       |
| H          | (HP) G125-P       | SkyRipper      | 38 x 406                  | 145                             | 120cc                               | TRA                    | HPR                       |
| R          | (HP) G126WT-13A   | Cesaroni       | 29 x 142                  | 116                             | 52.1                                | CAR                    | HPR                       |
| R          | (HP) G127RL-14A   | Cesaroni       | 24 x 228                  | 137.3                           | 70.5                                | CAR                    | HPR                       |
| H          | (HP) G130-P       | Contrail       | 38 x 407                  | 100                             | 140cc                               | TRA                    | HPR                       |
| R          | (HP) G131SS-14A   | Cesaroni       | 29 x 187                  | 125.2                           | 88.6                                | CAR                    | HPR                       |
| R          | (HP) G135R-SML    | Kosdon/AT      | 29 x 206                  | 146                             | 90                                  | TRA                    | HPR                       |
| R          | (HP) G138T-14a    | AeroTech       | 29 x 124                  | 157.1                           | 70                                  | NAR                    | HPR                       |
| R          | (HP) G142-6,10,14 | AeroTech       | 29 x 113                  | 84.3                            | 38.6                                | NAR                    | HPR                       |
| R          | (HP) G145PK-15A   | Cesaroni       | 24 x 228                  | 139.7                           | 66.7                                | CAR                    | HPR                       |
| R          | (HP) G150BS-13A   | Cesaroni       | 24 x 228                  | 142.5                           | 65.9                                | CAR                    | HPR                       |
| H          | (HP) G170PVC-P    | Contrail       | 38 x 406                  | 82.9                            | 140cc                               | TRA                    | HPR                       |
| R          | (HP) G185-12A     | Cesaroni       | 38 x 127                  | 128                             | 62.1                                | CAR                    | HPR                       |
| H          | (HP) G234-P       | Contrail       | 38 x 414                  | 118                             | 90cc                                | TRA                    | HPR                       |
| R          | (HP) G250VM-14A   | Cesaroni       | 29 x 142                  | 110                             | 50.6                                | CAR                    | HPR                       |
| H          | (HP) G300-P       | Contrail       | 38 x 406                  | 100                             | 90cc                                | TRA                    | HPR                       |
| R          | (HP) G339-P       | AeroTech       | 38 x 106                  | 110                             | 48                                  | TRA                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>     | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | H13ST-P           | AeroTech       | 29 x 214                  | 211.1                           | 116.4                               | TRA                    | HPR                       |
| S          | H14ST-P           | AeroTech       | 29 x 223                  | 240                             | 134                                 | TRA                    | HPR                       |
| R          | H42MY-10A         | Cesaroni       | 29 x 231                  | 186                             | 105.5                               | CAR                    | HPR                       |
| S          | H45W-10A          | AeroTech       | 38 x 203                  | 289                             | 197                                 | TRA                    | HPR                       |
| S          | H45W-P            | AeroTech       | 38 x 203                  | 320                             | 180                                 | TRA                    | HPR                       |
| R          | H53MY-12A         | Cesaroni       | 29 x 276                  | 234.2                           | 131.9                               | CAR                    | HPR                       |
| R          | H54WH/LB-10A      | Cesaroni       | 29 x 187                  | 167.7                           | 96.6                                | CAR                    | HPR                       |
| S          | H55W-6,10,14      | AeroTech       | 29 x 191                  | 162.3                           | 99.7                                | TRA                    | HPR                       |
| H          | H70-P             | Propulsion     | 38 x 464                  | 237                             | 217cc                               | CAR                    | HPR                       |

|    |               |           |          |         |         |     |     |
|----|---------------|-----------|----------|---------|---------|-----|-----|
| H  | H70-P         | RATTworks | 29 x 457 | 204.3   | 135.8cc | TRA | HPR |
| R  | H73J-S,M      | AeroTech  | 38 x 152 | 185.6   | 142.7   | TRA | HPR |
| H  | H78-P         | SkyRipper | 29 x 523 | 172.9   | 185cc   | TRA | HPR |
| R  | H87IM-12A     | Cesaroni  | 29 x 187 | 167.9   | 92.7    | CAR | HPR |
| R  | H90CL-12A     | Cesaroni  | 29 x 187 | 164.2   | 77.1    | CAR | HPR |
| R  | H90LR-14A     | Loki      | 38 x 177 | 234.4   | 120     | TRA | HPR |
| R  | H97J-S,M      | AeroTech  | 29 x 238 | 177.3   | 137.1   | TRA | HPR |
| S  | H100W-10A     | AeroTech  | 38 x 155 | 226.83  | 136     | TRA | HPR |
| R  | H100IM-15A    | Cesaroni  | 38 x 186 | 286.4   | 154.4   | CAR | HPR |
| R! | H100SF-17A    | Loki      | 38 x 177 | 201.5   | 120     | TRA | HPR |
| H  | H100-P        | WCH       | 38 x 403 | 247     | 189cc   | CAR | HPR |
| R  | H110WH-14A    | Cesaroni  | 38 x 186 | 269.1   | 152.6   | CAR | HPR |
| R  | H112J-6,10,14 | AeroTech  | 38 x 191 | 261.1   | 191.2   | TRA | HPR |
| S! | H115DM-14A    | AeroTech  | 29 x 203 | 176.52  | 113     | TRA | HPR |
| R  | H118CL-12A    | Cesaroni  | 29 x 231 | 216.2   | 102.8   | CAR | HPR |
| R  | H120-14A      | Cesaroni  | 38 x 186 | 260.7   | 136.6   | CAR | HPR |
| H  | H121-P        | Contrail  | 38 x 508 | 225     | 185cc   | TRA | HPR |
| R! | H123SK-12A    | Cesaroni  | 29 x 231 | 176.5   | 100     | CAR | HPR |
| R  | H123-14A      | Cesaroni  | 38 x 186 | 232.4   | 123     | CAR | HPR |
| R  | H123W-6,10,14 | AeroTech  | 38 x 152 | 223.6   | 119     | TRA | HPR |
| H  | H124-P        | SkyRipper | 38 x 533 | 225     | 220cc   | TRA | HPR |
| R  | H125-12A      | Cesaroni  | 38 x 186 | 265.6   | 125     | CAR | HPR |
| R  | H125CT-18A    | Loki      | 38 x 390 | 240.428 | 122     | TRA | HPR |
| R  | H128W-S,M,L   | AeroTech  | 29 x 194 | 172.9   | 93.6    | TRA | HPR |
| R  | H130W-14A     | AeroTech  | 38 x 154 | 213.187 | 123     | TRA | HPR |
| R  | H130W-P       | Kosdon/AT | 29 x 291 | 247     | 140     | TRA | HPR |
| R  | H133BS-14A    | Cesaroni  | 29 x 187 | 163.3   | 76.7    | CAR | HPR |
| R  | H135WH-12A    | Cesaroni  | 29 x 231 | 216.7   | 119.8   | CAR | HPR |
| S  | H135W-14A     | AeroTech  | 29 x 216 | 225.84  | 82      | TRA | HPR |
| R  | H140CL-11A    | Cesaroni  | 29 x 276 | 268     | 128.5   | CAR | HPR |
| H  | H141-P        | Contrail  | 38 x 508 | 241     | 185cc   | TRA | HPR |
| R  | H143SS-13A    | Cesaroni  | 38 x 186 | 247     | 187     | CAR | HPR |
| R  | H144LW-17A    | Loki      | 38 x 190 | 239.3   | 126     | TRA | HPR |
| R  | H148R-S,M,L   | AeroTech  | 38 x 152 | 206     | 122     | TRA | HPR |
| R  | H151RL-15A    | Cesaroni  | 29 x 231 | 207.2   | 109.1   | CAR | HPR |
| R  | H152BS-15A    | Cesaroni  | 38 x 185 | 275.9   | 137     | TRA | HPR |
| R  | H153-13A      | Cesaroni  | 38 x 186 | 258     | 143.9   | TRA | HPR |
| H  | H155-P        | SkyRipper | 38 x 533 | 229     | 220cc   | TRA | HPR |
| R  | H159GR-15A    | Cesaroni  | 29 x 320 | 298.2   | 176.6   | CAR | HPR |
| R  | H160CL-12A    | Cesaroni  | 29 x 320 | 311.7   | 154.2   | CAR | HPR |
| R! | H160SK-14A    | Cesaroni  | 29 x 276 | 220.5   | 125     | CAR | HPR |
| R  | H160LB-15A    | Loki      | 38 x 177 | 260.1   | 120     | TRA | HPR |

|    |                |          |          |        |       |     |     |
|----|----------------|----------|----------|--------|-------|-----|-----|
| R  | H163WT-14A     | Cesaroni | 29 x 187 | 166.3  | 78.2  | CAR | HPR |
| R  | H165R-M,L      | AeroTech | 29 x 194 | 165    | 90    | TRA | HPR |
| S  | H169WS-13A     | AeroTech | 29 x 221 | 232.95 | 112   | TRA | HPR |
| R! | H170M-14A      | AeroTech | 38 x 192 | 319.9  | 182.5 | TRA | HPR |
| R  | H170BS-14A     | Cesaroni | 29 x 231 | 217.1  | 102.3 | CAR | HPR |
| R  | H175SS-14A     | Cesaroni | 29 x 231 | 166    | 118.1 | CAR | HPR |
| R! | H178DM-14A     | AeroTech | 38 x 192 | 283    | 177   | TRA | HPR |
| R! | H180SK-14A     | Cesaroni | 29 x 320 | 258    | 150   | CAR | HPR |
| R  | H180W-S,M,L    | AeroTech | 29 x 238 | 217.7  | 125   | TRA | HPR |
| S  | H182R-14A      | AeroTech | 29 x 203 | 216.78 | 115   | TRA | HPR |
| R  | H186RT-20A     | Gorilla  | 38 x 249 | 312.12 | 178   | TRA | HPR |
| R  | H194RL-14A     | Cesaroni | 29 x 276 | 260.3  | 136.4 | CAR | HPR |
| S  | H195NT-10A     | AeroTech | 29 x 222 | 236.09 | 107   | TRA | HPR |
| R  | H200BS-14A     | Cesaroni | 29 x 276 | 260.8  | 127.9 | CAR | HPR |
| H  | H200BS-P       | Contrail | 54 x 762 | 269    | N/A   | TRA | HPR |
| R  | H210R-10,P     | AeroTech | 29 x 238 | 220    | 110.8 | NAR | HPR |
| H  | H211           | Contrail | 38 x 508 | 206    | 185cc | TRA | HPR |
| S  | H219T-14       | AeroTech | 38 x 155 | 233    | 109   | TRA | HPR |
| R  | H220T-6,10,14  | AeroTech | 29 x 238 | 220    | 106.4 | NAR | HPR |
| H  | H222-P         | Contrail | 38 x 406 | 161    | 140cc | TRA | HPR |
| R  | H225-14A       | Cesaroni | 38 x 186 | 273.2  | 123.6 | CAR | HPR |
| R! | H225BL-P       | Gorilla  | 38 x 390 | 226    | 173   | TRA | HPR |
| R! | H226SK-14A     | Cesaroni | 29 x 365 | 305    | 175   | CAR | HPR |
| R  | H233RL-14A     | Cesaroni | 29 x 320 | 311.5  | 163.7 | CAR | HPR |
| R  | H237SS-13A     | Cesaroni | 29 x 276 | 206.2  | 147.6 | CAR | HPR |
| R  | H238T-6,10,14  | AeroTech | 29 x 194 | 165.5  | 85    | TRA | HPR |
| R  | H242T-6,10,14  | AeroTech | 38 x 152 | 231.7  | 115   | TRA | HPR |
| H  | H246-P         | Contrail | 38 x 508 | 222    | 185cc | TRA | HPR |
| H  | H248PVC-P      | Contrail | 38 x 719 | 261.5  | 275cc | TRA | HPR |
| R  | H250G-S,M,L    | AeroTech | 29 x 239 | 219.5  | 120   | TRA | HPR |
| R  | H255BS-14A     | Cesaroni | 29 x 320 | 315.4  | 153.4 | CAR | HPR |
| R  | H255WT-14A     | Cesaroni | 29 x 231 | 229.3  | 104.3 | CAR | HPR |
| R  | H268R-10,14,P  | AeroTech | 29 x 333 | 320    | 166   | NAR | HPR |
| H  | H277-P         | Contrail | 38 x 712 | 292    | 370cc | TRA | HPR |
| S  | H283ST-7,11,15 | AeroTech | 38 x 155 | 201    | 97    | TRA | HPR |
| R  | H295SS-13A     | Cesaroni | 29 x 320 | 252.7  | 177.1 | CAR | HPR |
| H  | H300-P         | Contrail | 38 x 508 | 161    | 185cc | TRA | HPR |
| H  | H303-P         | Contrail | 38 x 508 | 170    | 185cc | TRA | HPR |
| R  | H340SS-14A     | Cesaroni | 29 x 365 | 287.3  | 206.7 | CAR | HPR |
| H  | H340-P         | Contrail | 38 x 719 | 304.5  | 275cc | TRA | HPR |
| R  | H399WT-12A     | Cesaroni | 29 x 320 | 282.2  | 132.6 | CAR | HPR |
| R  | H400-13A       | Cesaroni | 38 x 186 | 255    | 122.4 | TRA | HPR |

|            |                       |                |                           |                                 |                                     |                        |                           |
|------------|-----------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| R          | H410VM-14A            | Cesaroni       | 29 x 187                  | 167.7                           | 75.9                                | CAR                    | HPR                       |
| R          | H500-17A              | Loki           | 38 x 295                  | 317                             | 156                                 | TRA                    | HPR                       |
| S          | H550ST-14A            | AeroTech       | 38 x 206                  | 312.06                          | 176                                 | TRA                    | HPR                       |
| R          | H550ST-14A            | AeroTech       | 38 x 193                  | 309.98                          | 154                                 | TRA                    | HPR                       |
| R          | H565-A                | Cesaroni       | 38 x 245                  | 319.8                           | 165                                 | CAR                    | HPR                       |
| R          | H669-P                | AeroTech       | 38 x 152                  | 221                             | 98                                  | TRA                    | HPR                       |
| R          | H999-P                | AeroTech       | 38 x 203                  | 319.9                           | 147                                 | TRA                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>         | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | I40N-P                | AeroTech       | 39 x 203                  | 374.9                           | 197                                 | TRA                    | HPR                       |
| R          | I49N-P                | AeroTech       | 38 x 184                  | 383                             | 190.8                               | NAR                    | HPR                       |
| R          | I55MY-9A              | Cesaroni       | 38 x 245                  | 395                             | 223.8                               | CAR                    | HPR                       |
| R          | I59WN-P               | AeroTech       | 38 x 232                  | 486                             | 251.7                               | NAR                    | HPR                       |
| S          | I65W-10A              | AeroTech       | 54 x 218                  | 634.97                          | 377                                 | TRA                    | HPR                       |
| S          | I65W-P                | AeroTech       | 54 x 235                  | 630.5                           | 369.7                               | NAR                    | HPR                       |
| H          | I80-P                 | Propulsion     | 38 x 646                  | 460                             | 383cc                               | CAR                    | HPR                       |
| H          | I80-P                 | RATTworks      | 29 x 730                  | 360                             | 276cc                               | TRA                    | HPR                       |
| H          | I90L-P                | RATTworks      | 29 x 921                  | 493.8                           | 361cc                               | TRA                    | HPR                       |
| R          | I100RL/LB-17A         | Cesaroni       | 54 x 236                  | 613.6                           | 350.1                               | CAR                    | HPR                       |
| R          | I110LW-M,L            | Loki           | 38 x 305                  | 487                             | 289                                 | TRA                    | HPR                       |
| H          | I110-P                | WCH            | 38 x 606                  | 499.7                           | 334cc                               | CAR                    | HPR                       |
| R          | I115W-S,M,L           | AeroTech       | 54 x 156                  | 409.3                           | 229                                 | TRA                    | HPR                       |
| H          | I117-P                | SkyRipper      | 38 x 914                  | 592                             | 580cc                               | TRA                    | HPR                       |
| R          | I117FJ-S,M,L          | AeroTech       | 54 x 156                  | 364.9                           | 253                                 | TRA                    | HPR                       |
| H          | I119-P                | SkyRipper      | 38 x 711                  | 407                             | 400cc                               | TRA                    | HPR                       |
| R          | I120IM-15A            | Cesaroni       | 54 x 143                  | 501.8                           | 263.1                               | CAR                    | HPR                       |
| R          | I125WH/LB-10A         | Cesaroni       | 38 x 367                  | 566.6                           | 335                                 | CAR                    | HPR                       |
| H          | I130(300CC098J)-P     | Hypertek       | 54 x 546                  | 470.6                           | 300cc                               | TRA                    | HPR                       |
| H          | I136(300CC098J2)-P    | Hypertek       | 54 x 546                  | 507                             | 300cc                               | TRA                    | HPR                       |
| S          | I140W-14A             | AeroTech       | 38 x 203                  | 335.53                          | 183                                 | TRA                    | HPR                       |
| R!         | I140SK-14A            | Cesaroni       | 54 x 143                  | 395.6                           | 210.4                               | CAR                    | HPR                       |
| H          | I145FX(300CC098JFX)-P | Hypertek       | 54 x 546                  | 541                             | 300cc                               | TRA                    | HPR                       |
| H          | I147-P                | SkyRipper      | 38 x 711                  | 519                             | 400cc                               | TRA                    | HPR                       |
| R          | I150BS-11A            | Cesaroni       | 54 x 152                  | 465.1                           | 224                                 | TRA                    | HPR                       |
| R          | I154J-6,10            | AeroTech       | 38 x 241                  | 378                             | 252.8                               | TRA                    | HPR                       |
| H          | I155HP-P              | Contrail       | 38 x 719                  | 541                             | 370cc                               | TRA                    | HPR                       |
| H          | I160-P                | Propulsion     | 38 x 646                  | 484                             | 383cc                               | CAR                    | HPR                       |
| R          | I161W-S,M,L           | AeroTech       | 38 x 191                  | 328.7                           | 178.6                               | TRA                    | HPR                       |
| R          | I165CS-17A            | Cesaroni       | 54 x 69                   | 518.2                           | 230.1                               | CAR                    | HPR                       |
| R          | I170G-10A             | AeroTech       | 54 x 174                  | 418.54                          | 227                                 | TRA                    | HPR                       |
| R          | I170-14a              | Cesaroni       | 38 x 245                  | 382                             | 187.5                               | CAR                    | HPR                       |
| R          | I170S-L               | Kosdon/AT      | 38 x 314                  | 374                             | 182                                 | TRA                    | HPR                       |

|    |                       |          |          |         |       |     |     |
|----|-----------------------|----------|----------|---------|-------|-----|-----|
| S  | I175WS-13A            | AeroTech | 38 x 203 | 333     | 168   | TRA | HPR |
| R  | I175WH-14A            | Cesaroni | 38 x 245 | 411.4   | 228.9 | CAR | HPR |
| R  | I180W-14A             | AeroTech | 38 x 201 | 325.584 | 186   | TRA | HPR |
| R! | I180SK-14A            | Cesaroni | 38 x 245 | 338.43  | 394   | TRA | HPR |
| R  | I195-16A              | Cesaroni | 38 x 245 | 396.2   | 204.9 | CAR | HPR |
| R  | I195WW-18             | Animal   | 38 x 249 | 358     | 192.2 | NAR | HPR |
| R  | I195J-6,10,14         | AeroTech | 38 x 299 | 426.1   | 272   | TRA | HPR |
| R  | I200W-6,10,14         | AeroTech | 29 x 333 | 324.5   | 186.5 | TRA | HPR |
| R  | I204IM-13A            | Cesaroni | 29 x 320 | 347.7   | 185.4 | CAR | HPR |
| R  | I205-13A              | Cesaroni | 38 x 245 | 380.9   | 206.1 | TRA | HPR |
| S  | I205W-14A             | AeroTech | 29 x 304 | 339.342 | 207   | TRA | HPR |
| H  | I205(300CC125J)-P     | Hypertek | 54 x 546 | 469     | 300cc | TRA | HPR |
| R  | I210LR-14A            | Loki     | 38 x 292 | 489.8   | 240   | TRA | HPR |
| H  | I210-P                | Contrail | 38 x 915 | 497     | 550cc | TRA | HPR |
| R  | I211W-6,10,14         | AeroTech | 38 x 248 | 441.6   | 238   | TRA | HPR |
| R  | I212SS-14A            | Cesaroni | 38 x 245 | 364     | 275   | CAR | HPR |
| R  | I215R-S,M,L           | AeroTech | 54 x 156 | 397     | 208   | TRA | HPR |
| R  | I216CL(I)-14A         | Cesaroni | 38 x 367 | 636.1   | 312.5 | CAR | HPR |
| R  | I218WT-14A            | Cesaroni | 54 x 152 | 491.2   | 230   | TRA | HPR |
| R  | I218R-6,14,P          | AeroTech | 38 x 203 | 330     | 172.7 | NAR | HPR |
| R! | I220SK-20             | Animal   | 38 x 249 | 358     | 201.9 | NAR | HPR |
| H  | I221-P                | Contrail | 38 x 712 | 370     | 370cc | TRA | HPR |
| H  | I222(300CC125J2)-P    | Hypertek | 54 x 546 | 519     | 300cc | TRA | HPR |
| R! | I223SK-14A            | Cesaroni | 38 x 303 | 434.05  | 494   | TRA | HPR |
| R  | I223GT-20A            | Gorilla  | 38 x 249 | 327.93  | 181   | TRA | HPR |
| R  | I224CL-15A            | Cesaroni | 29 x 365 | 381.5   | 182.5 | CAR | HPR |
| R  | I225FJ-6,10,14        | AeroTech | 38 x 250 | 368     | 264   | TRA | HPR |
| H  | I225FX(300CC125JFX)-P | Hypertek | 54 x 546 | 527.5   | 300cc | TRA | HPR |
| R  | I229T-S,M,L           | AeroTech | 54 x 156 | 411     | 206   | TRA | HPR |
| R  | I235WC-P              | Gorilla  | 38 x 249 | 324     | 313   | TRA | HPR |
| R  | I236BS-17A            | Cesaroni | 38 x 243 | 413     | 204   | TRA | HPR |
| R  | I240-15A              | Cesaroni | 38 x 303 | 555.8   | 279   | TRA | HPR |
| R  | I242WH-15A            | Cesaroni | 38 x 303 | 548.2   | 305.2 | CAR | HPR |
| R  | I243WH-13A            | Cesaroni | 29 x 365 | 381.7   | 212.1 | CAR | HPR |
| R  | I245G-S,M,L           | AeroTech | 38 x 201 | 334.07  | 187   | TRA | HPR |
| H  | I247WS-P              | Contrail | 54 x 711 | 637     | N/A   | TRA | HPR |
| H  | I250-P                | Alpha    | 54 x 711 | 540     | 353.8 | NAR | HPR |
| H  | I250HP-P              | Contrail | 38 x 719 | 430     | 275cc | TRA | HPR |
| R  | I255-16A              | Cesaroni | 38 x 303 | 517.3   | 273.2 | CAR | HPR |
| H  | I260(440CC172J)-P     | Hypertek | 54 x 614 | 570.4   | 440cc | TRA | HPR |
| R  | I271BB-20             | Animal   | 38 x 258 | 390     | 188.7 | NAR | HPR |
| S! | I280DM-14A            | AeroTech | 38 x 355 | 561.44  | 355   | TRA | HPR |

|      |                 |           |          |          |       |     |     |
|------|-----------------|-----------|----------|----------|-------|-----|-----|
| R    | I280F-L         | Kosdon/AT | 38 x 314 | 382      | 182   | TRA | HPR |
| R    | I284W-6,10,14   | AeroTech  | 38 x 299 | 607.3    | 315.9 | TRA | HPR |
| R    | I285R-10,14,P   | AeroTech  | 38 x 250 | 420      | 230.2 | NAR | HPR |
| R    | I285-15A        | Cesaroni  | 38 x 303 | 510.1    | 272.4 | TRA | HPR |
| R    | I285GG-20       | Animal    | 38 x 258 | 353      | 206.5 | NAR | HPR |
| R    | I287SS-15A      | Cesaroni  | 38 x 303 | 486      | 363   | CAR | HPR |
| H    | I290-P          | Contrail  | 38 x 922 | 430      | 460cc | TRA | HPR |
| R!   | I297SK-15A      | Cesaroni  | 38 x 367 | 542.8    | 591   | TRA | HPR |
| R    | I300T-6,10,14   | AeroTech  | 38 x 250 | 440      | 221.6 | NAR | HPR |
| R(a) | I301W-18        | Kosdon/AT | 38 x 640 | 554      | 310   | NAR | HPR |
| R    | I303BS-16A      | Cesaroni  | 38 x 302 | 537.6    | 270   | TRA | HPR |
| R    | I305FJ-6,10,14  | AeroTech  | 38 x 299 | 452      | 330   | TRA | HPR |
| H    | I307-P          | Contrail  | 38 x 915 | 573      | 550cc | TRA | HPR |
| H    | I310(440CC172J) | Hypertek  | 54 x 645 | 574.5    | 440cc | TRA | HPR |
| R    | I310S-S,L,P     | Kosdon/AT | 38 x 368 | 633.8    | 316.3 | TRA | HPR |
| R!   | I315SK-20       | Animal    | 38 x 370 | 572      | 333.7 | NAR | HPR |
| R!   | I316SF-17A      | Loki      | 38 x 292 | 432.2    | 240   | TRA | HPR |
| R    | I324RT-20A      | Gorilla   | 38 x 370 | 526.46   | 299   | TRA | HPR |
| R    | I325WW-18       | Animal    | 38 x 370 | 594      | 316.8 | NAR | HPR |
| R!   | I327DM-14A      | AeroTech  | 38 x 337 | 539      | 354   | TRA | HPR |
| H    | I333-P          | Contrail  | 38 x 922 | 556      | 460cc | TRA | HPR |
| R    | I345-15A        | Cesaroni  | 38 x 245 | 408.58   | 185.4 | CAR | HPR |
| S    | I350R-10        | AeroTech  | 38 x 355 | 634      | 348   | TRA | HPR |
| R    | I350SS-16A      | Cesaroni  | 38 x 367 | 601      | 413   | CAR | HPR |
| R    | I357T-S,M,L     | AeroTech  | 38 x 203 | 342      | 170   | TRA | HPR |
| R    | I360-15A        | Cesaroni  | 38 x 367 | 625.5    | 334.6 | TRA | HPR |
| R    | I364FJ-6,10,14  | AeroTech  | 38 x 337 | 570      | 396   | TRA | HPR |
| R    | I366R-M,L       | AeroTech  | 38 x 299 | 539      | 300   | TRA | HPR |
| R    | I370F-P         | Kosdon/AT | 38 x 368 | 634.3    | 316.9 | TRA | HPR |
| R    | I375GG-20       | Animal    | 38 x 370 | 596      | 340.2 | NAR | HPR |
| R    | I377CT-18A      | Loki      | 38 x 640 | 522.2865 | 250   | TRA | HPR |
| R    | I389GT-20A      | Gorilla   | 38 x 370 | 553.15   | 303   | TRA | HPR |
| R!   | I392BL-18A      | Gorilla   | 38 x 370 | 446.12   | 270   | TRA | HPR |
| R    | I396LS-17A      | Loki      | 38 x 406 | 611      | 372   | TRA | HPR |
| H    | I400-P          | Contrail  | 38 x 922 | 432      | 550cc | TRA | HPR |
| R    | I405LW-17A      | Loki      | 38 x 305 | 493.2    | 252   | TRA | HPR |
| R    | I430LB-15A      | Loki      | 38 x 292 | 532.6    | 240   | TRA | HPR |
| R    | I435T-6,10,14   | AeroTech  | 38 x 299 | 568.9    | 273   | TRA | HPR |
| R    | I450F-L         | Kosdon/AT | 38 x 368 | 633      | 302   | TRA | HPR |
| R    | I455VM-16A      | Cesaroni  | 54 x 143 | 474.9    | 212.7 | CAR | HPR |
| R    | I462WC-18A      | Gorilla   | 38 x 370 | 556.73   | 292   | TRA | HPR |
| R    | I470-15A        | Cesaroni  | 38 x 303 | 540.1    | 247.2 | CAR | HPR |

|            |                       |                |                           |                                 |                                     |                        |                           |
|------------|-----------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| S          | I500T-14A             | AeroTech       | 38 x 355                  | 614.45                          | 312                                 | TRA                    | HPR                       |
| H          | I500-P                | Contrail       | 38 x 712                  | 336                             | 275cc                               | TRA                    | HPR                       |
| R          | I540WT-16A            | Cesaroni       | 38 x 367                  | 635                             | 269.4                               | CAR                    | HPR                       |
| R(a)       | I550R-20              | Kosdon/AT      | 38 x 640                  | 575                             | 295                                 | NAR                    | HPR                       |
| R          | I566-16A              | Cesaroni       | 38 x 245                  | 370                             | 183.6                               | CAR                    | HPR                       |
| R          | I599N-P               | AeroTech       | 54 x 156                  | 404.9                           | 195                                 | TRA                    | HPR                       |
| R          | I600R-M               | AeroTech       | 38 x 337                  | 597.3                           | 330                                 | TRA                    | HPR                       |
| H          | I727-P                | Contrail       | 38 x 922                  | 611                             | 410cc                               | TRA                    | HPR                       |
| H          | I747-P                | Contrail       | 38 x 719                  | 431                             | 225cc                               | TRA                    | HPR                       |
| R          | I800-16A              | Cesaroni       | 38 x 303                  | 419                             | 221                                 | CAR                    | HPR                       |
| R          | I1299N-P              | AeroTech       | 38 x 250                  | 422                             | 192                                 | TRA                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>         | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| R          | J90W-S,M,L            | AeroTech       | 54 x 243                  | 707.3                           | 426                                 | TRA                    | HPR                       |
| R          | J94MY-P               | Cesaroni       | 38 x 367                  | 644                             | 372.9                               | CAR                    | HPR                       |
| R          | J99N-P                | AeroTech       | 54 x 244                  | 945.2                           | 556                                 | TRA                    | HPR                       |
| H          | J115(440CC076J)-P     | Hypertek       | 54 x 614                  | 474                             | 440cc                               | TRA                    | HPR                       |
| H          | J120FX(440CC076JFX)-P | Hypertek       | 54 x 614                  | 758                             | 440cc                               | TRA                    | HPR                       |
| S          | J135W-S,M,L           | AeroTech       | 54 x 368                  | 1069                            | 663                                 | TRA                    | HPR                       |
| R          | J140WH/LB-P           | Cesaroni       | 54 x 329                  | 1210.6                          | 680                                 | CAR                    | HPR                       |
| H          | J140-P                | Propulsion     | 38 x 881                  | 664                             | 596cc                               | CAR                    | HPR                       |
| H          | J144-P                | SkyRipper      | 38 x 914                  | 699                             | 580cc                               | TRA                    | HPR                       |
| R!         | J145SK-19A            | Cesaroni       | 54 x 236                  | 699.1                           | 417                                 | CAR                    | HPR                       |
| R          | J150MY-P              | Cesaroni       | 38 x 500                  | 949.2                           | 567.7                               | CAR                    | HPR                       |
| H          | J150-P                | Contrail       | 38 x 922                  | 654                             | 550cc                               | TRA                    | HPR                       |
| H          | J160-P                | RATTworks      | 38 x 1219                 | 667                             | 490cc                               | TRA                    | HPR                       |
| R          | J167WC-P              | Gorilla        | 54 x 326                  | 950                             | 600                                 | TRA                    | HPR                       |
| H          | J170(440CC098J)-P     | Hypertek       | 54 x 614                  | 728                             | 440cc                               | TRA                    | HPR                       |
| R          | J175LW-PS             | Loki           | 54 x 330                  | 1146                            | 630                                 | TRA                    | HPR                       |
| R          | J180T-S,M,L           | AeroTech       | 54 x 230                  | 764                             | 437.1                               | TRA                    | HPR                       |
| H          | J190FX(440CC098JFX)-P | Hypertek       | 54 x 614                  | 827                             | 440cc                               | TRA                    | HPR                       |
| R          | J210-16A              | Cesaroni       | 54 x 236                  | 836                             | 396                                 | CAR/NAR                | HPR                       |
| H          | J220(440CC110J)-P     | Hypertek       | 54 x 645                  | 721                             | 440cc                               | TRA                    | HPR                       |
| H          | J222-P                | Contrail       | 38 x 1227                 | 928                             | 830cc                               | TRA                    | HPR                       |
| R!         | J230SK-P              | Animal         | 54 x 326                  | 995                             | 525.7                               | NAR                    | HPR                       |
| H          | J234-P                | Contrail       | 54 x 922                  | 1033                            | 910cc                               | TRA                    | HPR                       |
| R          | J240-16A              | Cesaroni       | 54 x 236                  | 806                             | 446                                 | CAR                    | HPR                       |
| H          | J242-P                | Contrail       | 38 x 1220                 | 752                             | 830cc                               | TRA                    | HPR                       |
| R          | J244WH-14A            | Cesaroni       | 54 x 236                  | 867.2                           | 472.1                               | CAR                    | HPR                       |
| H          | J245-P                | Contrail       | 54 x 719                  | 644                             | 530cc                               | TRA                    | HPR                       |
| H          | J246-P                | Contrail       | 38 x 922                  | 673                             | 550cc                               | TRA                    | HPR                       |
| S          | J250W-14              | AeroTech       | 54 x 218                  | 704                             | 363                                 | TRA                    | HPR                       |

|    |                        |           |           |        |       |     |     |
|----|------------------------|-----------|-----------|--------|-------|-----|-----|
| R! | J250SK-15A             | Cesaroni  | 54 x 236  | 682.8  | 406   | TRA | HPR |
| H  | J250-P                 | Contrail  | 38 x 711  | 430    | 370cc | TRA | HPR |
| H  | J250(440CC125J)-P      | Hypertek  | 54 x 614  | 744.5  | 440cc | TRA | HPR |
| R  | J250FJ-S,M,L,XL        | AeroTech  | 54 x 241  | 711.6  | 511   | TRA | HPR |
| H  | J261G-P                | SkyRipper | 54 x 727  | 1248   | 830cc | TRA | HPR |
| H  | J263G-P                | SkyRipper | 54 x 607  | 844    | 550cc | TRA | HPR |
| R  | J270GR-13A             | Cesaroni  | 38 x 367  | 650.3  | 376   | CAR | HPR |
| S  | J270W-14A              | AeroTech  | 38 x 355  | 703.39 | 381   | TRA | HPR |
| H  | J270FX(440CC125JFX)-P  | Hypertek  | 54 x 614  | 802.2  | 440cc | TRA | HPR |
| H  | J272-P                 | Contrail  | 54 x 922  | 1065.5 | 910cc | TRA | HPR |
| R  | J275W-S,M,L,XL         | AeroTech  | 54 x 230  | 774    | 472   | TRA | HPR |
| H  | J277WS-P               | Contrail  | 54 x 914  | 1031   | N/A   | TRA | HPR |
| R  | J280SS-16A             | Cesaroni  | 54 x 236  | 716.5  | 512   | CAR | HPR |
| R  | J285-15A               | Cesaroni  | 38 x 360  | 684    | 327   | CAR | HPR |
| R  | J290WH-15A             | Cesaroni  | 38 x 367  | 683.6  | 381.5 | CAR | HPR |
| H  | J292-P                 | Contrail  | 54 x 719  | 734    | 530cc | TRA | HPR |
| R  | J293BS-13A             | Cesaroni  | 54 x 236  | 837.8  | 414   | TRA | HPR |
| R  | J295-16A               | Cesaroni  | 54 x 320  | 1196.3 | 594   | CAR | HPR |
| H  | J295FX(440CC172JFX)-P  | Hypertek  | 54 x 552  | 655    | 440cc | TRA | HPR |
| R  | J300-15A               | Cesaroni  | 38 x 360  | 694    | 345.4 | TRA | HPR |
| R  | J300LR-PS              | Loki      | 54 x 327  | 1208   | 620   | TRA | HPR |
| R  | J315R-L,P              | AeroTech  | 54 x 230  | 763.3  | 438   | TRA | HPR |
| H  | J315-P                 | Hypertek  | 81 x 552  | 998.8  | 440cc | TRA | HPR |
| R  | J316PK-17A             | Cesaroni  | 38 x 367  | 654.3  | 337.9 | CAR | HPR |
| R  | J325-P                 | Cesaroni  | 54 x 326  | 1099   | 537   | CAR | HPR |
| R  | J326LR-15A             | Loki      | 38 x 417  | 733    | 360   | TRA | HPR |
| R  | J330-16A               | Cesaroni  | 38 x 419  | 765    | 392   | CAR | HPR |
| H  | J330FX(835CC172JFX)-P  | Hypertek  | 81 x 552  | 1051   | 835cc | TRA | HPR |
| H  | J333-P                 | Contrail  | 38 x 1220 | 752    | 830cc | TRA | HPR |
| R  | J335-15A               | Cesaroni  | 38 x 367  | 649.2  | 341.5 | CAR | HPR |
| H  | J335BG-P               | Contrail  | 54 x 719  | 679    | 530cc | TRA | HPR |
| H  | J337B-P                | SkyRipper | 54 x 727  | 1073   | 830cc | TRA | HPR |
| R! | J340M-14A              | AeroTech  | 38 x 336  | 651.7  | 365   | TRA | HPR |
| H  | J345-P                 | Contrail  | 38 x 1227 | 891    | 735cc | TRA | HPR |
| H  | J348B-P                | SkyRipper | 54 x 607  | 716    | 550cc | TRA | HPR |
| R! | J350SF-PS              | Loki      | 54 x 327  | 931    | 574   | TRA | HPR |
| R  | J350W(0.5"core)"-S,M,L | AeroTech  | 38 x 337  | 670.1  | 361.1 | TRA | HPR |
| R  | J350W(.425 core)-S,M,L | AeroTech  | 38 x 337  | 697.4  | 381.1 | TRA | HPR |
| R  | J354WH-16A             | Cesaroni  | 38 x 421  | 818.7  | 457.8 | CAR | HPR |
| R  | J355-16A               | Cesaroni  | 54 x 329  | 1189.5 | 669   | CAR | HPR |
| H  | J355-P                 | Contrail  | 54 x 712  | 678.9  | 530cc | TRA | HPR |
| R  | J357BS-17A             | Cesaroni  | 38 x 360  | 657.6  | 338   | TRA | HPR |



|    |                |           |            |        |       |     |     |
|----|----------------|-----------|------------|--------|-------|-----|-----|
| R  | J357WW-P       | Animal    | 54 x 326   | 1000   | 548.1 | NAR | HPR |
| H  | J358-P         | Contrail  | 54 x 922   | 913.9  | 910cc | TRA | HPR |
| R  | J360-15A       | Cesaroni  | 38 x 419   | 826    | 413.1 | TRA | HPR |
| R! | J360SK-16A     | Cesaroni  | 54 x 320   | 1015.9 | 606   | TRA | HPR |
| R! | J365SK-P       | Animal    | 54 x 403   | 1125   | 702.3 | NAR | HPR |
| R! | J365BL-P       | Gorilla   | 54 x 326   | 852    | 498   | TRA | HPR |
| R  | J370GG-P       | Animal    | 54 x 326   | 1040   | 598.3 | NAR | HPR |
| R  | J380SS-16A     | Cesaroni  | 54 x 320   | 1043   | 769   | CAR | HPR |
| R! | J381SK-15A     | Cesaroni  | 38 x 421   | 659.9  | 688   | TRA | HPR |
| R  | J394GR-13A     | Cesaroni  | 38 x 500   | 970.4  | 572.1 | CAR | HPR |
| R  | J395-P         | Cesaroni  | 54 x 326   | 1079.3 | 573   | CAR | HPR |
| R  | J395RT-P       | Gorilla   | 54 x 326   | 1026   | 524   | TRA | HPR |
| R  | J400SS-16A     | Cesaroni  | 38 x 419   | 700    | 490   | CAR | HPR |
| R  | J400RR-P       | Animal    | 54 x 326   | 1100   | 558   | NAR | HPR |
| R  | J400-P         | Cesaroni  | 54 x 326   | 976.9  | 723   | CAR | HPR |
| R  | J401FJ-S,M,L   | AeroTech  | 54 x 314   | 1115.4 | 730   | TRA | HPR |
| R  | J405S-L        | Kosdon/AT | 38 x 476   | 722    | 367   | TRA | HPR |
| R  | J410-16A       | Cesaroni  | 38 x 421   | 773.8  | 409.8 | CAR | HPR |
| R  | J415W-S,M,L    | AeroTech  | 54 x 314   | 1232   | 697   | TRA | HPR |
| H  | J416-P         | Contrail  | 54 x 922   | 1130   | 910cc | TRA | HPR |
| R  | J420CL-15A     | Cesaroni  | 38 x 500   | 1007.8 | 479.6 | CAR | HPR |
| R  | J420R-S,M,L    | AeroTech  | 38 x 337   | 658    | 345   | TRA | HPR |
| S  | J425R-14A      | AeroTech  | 38 x 356   | 675.51 | 359   | TRA | HPR |
| S  | J425R-14A      | AeroTech  | 38 x 356   | 680.33 | 631   | TRA | HPR |
| R  | J425BS-16A     | Cesaroni  | 38 x 419   | 783.9  | 406   | TRA | HPR |
| R  | J430WT-18A     | Cesaroni  | 54 x 236   | 821.1  | 384   | CAR | HPR |
| S  | J435WS-14A     | AeroTech  | 38 x 356.5 | 774.1  | 352   | TRA | HPR |
| R  | J440BB-20      | Animal    | 38 x 370   | 653    | 313.1 | NAR | NAR |
| R  | J440BB-P       | Animal    | 54 x 326   | 1109   | 528.4 | CAR | HPR |
| R  | J449BS-15A     | Cesaroni  | 54 x 320   | 1260.5 | 624   | TRA | HPR |
| S! | J450DM-14      | AeroTech  | 54 x 359   | 1055   | 510   | TRA | HPR |
| R  | J450ST-P       | Animal    | 54 x 326   | 1070   | 533.1 | NAR | HPR |
| R! | J450BL-P       | Gorilla   | 54 x 402   | 1121   | 658   | TRA | HPR |
| R  | J453WH-16A     | Cesaroni  | 38 x 500   | 1012.6 | 585.5 | CAR | HPR |
| R  | J460T-S,M,L    | AeroTech  | 54 x 230   | 806    | 386   | TRA | HPR |
| R  | J465GT-P       | Gorilla   | 54 x 326   | 1023   | 566   | TRA | HPR |
| R  | J474CT-6,12,18 | Loki      | 38 x 740   | 709.1  | 360   | TRA | HPR |
| R  | J475BkBr-P     | Animal    | 54 x 326   | 976.9  | 723   | CAR | HPR |
| R  | J475BB-P       | Animal    | 54 x 403   | 1233.4 | 704.5 | CAR | HPR |
| R  | J480BB-P       | Animal    | 54 x 326   | 1165   | 556   | NAR | HPR |
| R  | J485WC-PS      | Gorilla   | 54 x 326   | 1059.7 | 552   | TRA | HPR |
| R  | J500ST-20A     | Animal    | 38 x 370   | 660    | 327   | TRA | HPR |

|            |                   |                |                           |                                 |                                     |                        |                           |
|------------|-------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| R          | J500G-S,M,L       | AeroTech       | 38 x 344                  | 693.35                          | 375                                 | TRA                    | HPR                       |
| R          | J510WL-L          | AeroTech       | 38 x 584                  | 1162.36                         | 662                                 | TRA                    | HPR                       |
| R          | J520W-13A         | AeroTech       | 38 x 480                  | 671.3                           | 381                                 | TRA                    | HPR                       |
| R!         | J520SK-16A        | Cesaroni       | 38 x 510                  | 848                             | 498                                 | TRA                    | HPR                       |
| R          | J520W-P           | AeroTech       | 38 x 1080                 | 730.6                           | 381                                 | TRA                    | HPR                       |
| R          | J520F-S,M,L       | AeroTech       | 38 x 368                  | 645.93                          | 327                                 | TRA                    | HPR                       |
| R          | J525LW-PS         | Loki           | 54 x 330                  | 1112.5                          | 625                                 | TRA                    | HPR                       |
| R          | J528LW-17A        | Loki           | 38 x 419                  | 741                             | 374                                 | TRA                    | HPR                       |
| R          | J530IM-15A        | Cesaroni       | 38 x 500                  | 1115.5                          | 576.5                               | CAR                    | HPR                       |
| R          | J535BT-P          | Gorilla        | 54 x 327                  | 1113.799                        | 590                                 | TRA                    | HPR                       |
| R          | J540R-S,M,L,P     | AeroTech       | 54 x 314                  | 1161                            | 679                                 | TRA                    | HPR                       |
| H          | J555-P            | Contrail       | 38 x 1220                 | 795                             | 735cc                               | TRA                    | HPR                       |
| R          | J570W-S,M,L       | AeroTech       | 38 x 479                  | 973                             | 535.8                               | TRA                    | HPR                       |
| R          | J575FJ-S,M,L      | AeroTech       | 38 x 479                  | 805                             | 519                                 | TRA                    | HPR                       |
| R          | J580SS-17A        | Cesaroni       | 38 x 510                  | 896.3                           | 550                                 | TRA                    | HPR                       |
| R          | J595BS-16A        | Cesaroni       | 38 x 510                  | 985                             | 510                                 | TRA                    | HPR                       |
| R          | J600RL-16A        | Cesaroni       | 38 x 510                  | 998.6                           | 688                                 | TRA                    | HPR                       |
| R          | J605F-L           | Kosdon/AT      | 38 x 476                  | 737                             | 367                                 | TRA                    | HPR                       |
| R          | J607WC-18A        | Gorilla        | 38 x 370                  | 677.94                          | 360                                 | TRA                    | HPR                       |
| R          | J615ST-20A        | AeroTech       | 54 x 852                  | 745.45                          | 370.5                               | TRA                    | HPR                       |
| H          | J642-P            | Contrail       | 54 x 922                  | 1092.6                          | 910cc                               | TRA                    | HPR                       |
| R!         | J650SF-15A        | Loki           | 38 x 1200                 | 942                             | 573                                 | TRA                    | HPR                       |
| R          | J712LB-15A        | Loki           | 38 x 406                  | 751.9                           | 372                                 | TRA                    | HPR                       |
| R(a)       | J740G-P           | AeroTech       | 38 x 640                  | 682                             | 308                                 | TRA                    | HPR                       |
| R          | J745-P            | Cesaroni       | 54 x 326                  | 1196.4                          | 549                                 | CAR                    | HPR                       |
| R          | J760WT-19A        | Cesaroni       | 54 x 329                  | 1265.7                          | 576                                 | CAR                    | HPR                       |
| H          | J800-P            | Contrail       | 38 x 1227                 | 928                             | 685cc                               | TRA                    | HPR                       |
| R          | J800T-S,M,L,XL    | AeroTech       | 54 x 314                  | 1229.1                          | 619.4                               | TRA                    | HPR                       |
| R          | J825R-M           | AeroTech       | 38 x 479                  | 970                             | 497                                 | TRA                    | HPR                       |
| R          | J1000LW-7,9,12,15 | Loki           | 38 x 625                  | 1220                            | 573                                 | TRA                    | HPR                       |
| R          | J1026CT-14A       | Loki           | 38 x 625                  | 1266.86                         | 616                                 | TRA                    | HPR                       |
| R          | J1055-17A         | Cesaroni       | 54 x 236                  | 746.6                           | 358                                 | CAR                    | HPR                       |
| R          | J1299N-P          | AeroTech       | 54 x 230                  | 845                             | 371.6                               | TRA                    | HPR                       |
| R          | J1365-P           | Cesaroni       | 54 x 326                  | 932.4                           | 444                                 | CAR                    | HPR                       |
| R          | J1423N-P          | AeroTech       | 54 x 230                  | 845                             | 371.6                               | TRA                    | HPR                       |
| R          | J1520-17A         | Cesaroni       | 54 x 329                  | 1092.5                          | 1026                                | CAR                    | HPR                       |
| R          | J1720-P           | Animal         | 54 x 403                  | 1176.2                          | 592                                 | CAR                    | HPR                       |
| R          | J1799N-PS         | AeroTech       | 54 x 314                  | 1066.11                         | 540                                 | TRA                    | HPR                       |
| R          | J2135N-P          | AeroTech       | 54 x 314                  | 1261                            | 557.4                               | TRA                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>     | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| S          | K76WN-P           | AeroTech       | 54 x 368                  | 1349.8                          | 840                                 | TRA                    | HPR                       |

|    |                   |           |           |         |              |     |     |
|----|-------------------|-----------|-----------|---------|--------------|-----|-----|
| R  | K160CL-6          | Cesaroni  | 54 x 404  | 1525.5  | 772          | CAR | HPR |
| R  | K185W-S,M,L       | AeroTech  | 54 x 437  | 1417.2  | 836.8        | TRA | HPR |
| R  | K222WC-P          | Gorilla   | 54 x 402  | 1315    | 800          | TRA | HPR |
| H  | K234-P            | Contrail  | 54 x 1220 | 1657    | 1490cc       | TRA | HPR |
| R  | K235WC-P          | Gorilla   | 75 x 368  | 2049    | 1189         | TRA | HPR |
| H  | K240(835CC125J)-P | Hypertek  | 81 x 552  | 1292    | 835cc        | TRA | HPR |
| H  | K240H-P           | RATTworks | 64 x 908  | 1844.7  | 1507cc       | TRA | HPR |
| S  | K250W-P           | AeroTech  | 54 x 673  | 2484    | 1543         | TRA | HPR |
| S  | K250W (LMS)-P     | AeroTech  | 54 x 649  | 2342    | 1400         | TRA | HPR |
| R  | K250LWM-PS        | Loki      | 54 x 499  | 1607    | 938          | TRA | HPR |
| H  | K257G-P           | SkyRipper | 54 x 912  | 1733    | 1130cc       | TRA | HPR |
| R  | K260CL-P          | Cesaroni  | 54 x 572  | 2285.1  | 1149.3       | CAR | HPR |
| R  | K261WH/LB-P       | Cesaroni  | 54 x 488  | 2020.9  | 1151.9       | CAR | HPR |
| H  | K265SP-P          | Contrail  | 54 x 1219 | 1684    | 1490cc       | TRA | HPR |
| R  | K270W-S,M,L,XL    | AeroTech  | 54 x 579  | 1968    | 1188         | TRA | HPR |
| R  | K300CL-P          | Cesaroni  | 54 x 649  | 2546    | 1265.7       | CAR | HPR |
| H  | K300-P            | Contrail  | 75 x 1016 | 1909    | 2050cc       | TRA | HPR |
| H  | K321-P            | Contrail  | 54 x 1220 | 1570    | 1490cc       | TRA | HPR |
| R  | K327WC-P          | Gorilla   | 54 x 491  | 1616    | 1000         | TRA | HPR |
| H  | K347B-P           | SkyRipper | 54 x 912  | 1529    | 1130cc       | TRA | HPR |
| T  | K350TR-P          | RATTworks | 64 x 914  | 1861    | 1170cc/250ml | TRA | HPR |
| R  | K350LWM-PS        | Loki      | 54 x 736  | 2374    | 1400         | TRA | HPR |
| R  | K360WH-13A        | Cesaroni  | 54 x 329  | 1280.9  | 708.2        | CAR | HPR |
| R  | K365RR-P          | Animal    | 75 x 244  | 1675    | 946          | NAR | HPR |
| R  | K375WP-P          | AeroTech  | 54 x 570  | 2228.14 | 1292         | TRA | HPR |
| S  | K400C-14          | AeroTech  | 54 x 359  | 1304    | 650          | TRA | HPR |
| R  | K400GR-14A        | Cesaroni  | 54 x 404  | 1596.7  | 924.3        | CAR | HPR |
| R  | K400S-S,M,L       | Kosdon/AT | 54 x 403  | 1386.2  | 721.8        | TRA | HPR |
| H  | K404-P            | Contrail  | 75 x 1016 | 2441    | 2050cc       | TRA | HPR |
| R! | K411BL-PS         | Gorilla   | 75 x 368  | 1785.75 | 1132         | TRA | HPR |
| R  | K445-17A          | Cesaroni  | 54 x 404  | 1636.3  | 792          | CAR | HPR |
| R  | K450BB-PS         | Animal    | 75 x 244  | 1845    | 881.6        | NAR | HPR |
| R! | K454SK-19A        | Cesaroni  | 54 x 404  | 1363.7  | 769.2        | CAR | HPR |
| S  | K455NW-17A        | AeroTech  | 54 x 635  | 2327.9  | 1361         | TRA | HPR |
| R  | K455-P            | Cesaroni  | 54 x 403  | 1483    | 716          | CAR | HPR |
| R! | K456DM-14A        | AeroTech  | 54 x 401  | 1281    | 866          | TRA | HPR |
| H  | K456-P            | Contrail  | 75 x 813  | 1628    | 1400cc       | TRA | HPR |
| R  | K458W-P           | AeroTech  | 98 x 275  | 2464.6  | 1425         | TRA | HPR |
| H  | K460-P            | WCH       | 75 x 762  | 1988    | 1493cc       | CAR | HPR |
| R  | K470ST-P          | Animal    | 75 x 302  | 1679    | 826          | TRA | HPR |
| R  | K470WC-P          | Gorilla   | 54 x 728  | 2450    | 1400         | TRA | HPR |
| R  | K475WW-P          | Animal    | 54 x 403  | 1400    | 728.6        | NAR | HPR |

|    |                  |           |           |          |              |     |     |
|----|------------------|-----------|-----------|----------|--------------|-----|-----|
| R  | K480W-PS         | AeroTech  | 54 x 570  | 2273.26  | 1318         | TRA | HPR |
| R  | K490GR-16A       | Cesaroni  | 54 x 488  | 1978.4   | 1155.4       | CAR | HPR |
| R  | K500-18A         | Cesaroni  | 54 x 404  | 1595.6   | 892          | CAR | HPR |
| R! | K500SK-P         | Animal    | 75 x 368  | 1811     | 1123.5       | NAR | HPR |
| H  | K500SP-P         | Contrail  | 54 x 1524 | 2237     | N/A          | TRA | HPR |
| R  | K510-P           | Cesaroni  | 75 x 350  | 2486     | 1197         | CAR | HPR |
| R  | K513FJ-S,M,L,XL  | AeroTech  | 54 x 410  | 1496.3   | 974          | TRA | HPR |
| R! | K515SK-16A       | Cesaroni  | 38 x 500  | 1653.9   | 961.5        | CAR | HPR |
| R  | K520WH-17A       | Cesaroni  | 54 x 404  | 1710.5   | 944          | CAR | HPR |
| R  | K520RT-P         | Gorilla   | 54 x 401  | 1356     | 698          | TRA | HPR |
| H  | K525WS-P         | Contrail  | 54 x 1219 | 1620     | N/A          | TRA | HPR |
| R  | K527LR-P         | Loki      | 54 x 492  | 1983     | 1015         | TRA | HPR |
| R  | K530SS-16A       | Cesaroni  | 54 x 404  | 1412     | 1025         | CAR | HPR |
| R  | K530GG-P         | Animal    | 54 x 403  | 1410     | 796.7        | NAR | HPR |
| R! | K533BL-P         | Gorilla   | 54 x 491  | 1420     | 900          | TRA | HPR |
| S  | K535W-14A        | AeroTech  | 54 x 358  | 1421.535 | 1264         | TRA | HPR |
| S  | K535W-14A        | AeroTech  | 54 x 358  | 1414.766 | 770          | TRA | HPR |
| R  | K535-P           | Cesaroni  | 54 x 403  | 1441.8   | 764          | CAR | HPR |
| R! | K540M-14A        | AeroTech  | 54 x 401  | 1596.3   | 876.7        | TRA | HPR |
| H  | K543BS-P         | Contrail  | 76 x 813  | 2096     | 1450cc       | TRA | HPR |
| R  | K550W-S,M,L,XL   | AeroTech  | 54 x 410  | 1568     | 889.1        | TRA | HPR |
| R! | K555SK-P         | Animal    | 54 x 492  | 1300     | 862          | NAR | HPR |
| R  | K555WH-P         | Cesaroni  | 75 x 350  | 2406.2   | 1407         | CAR | HPR |
| H  | K555BG-P         | Contrail  | 54 x 1220 | 1687     | 1490cc       | TRA | HPR |
| R  | K555GT-P         | Gorilla   | 54 x 401  | 1397     | 780          | TRA | HPR |
| R  | K560RR-P         | Animal    | 54 x 430  | 1480     | 750          | NAR | HPR |
| R  | K560W-PS         | AeroTech  | 75 x 396  | 2511     | 1425         | TRA | HPR |
| R  | K570-17A         | Cesaroni  | 54 x 488  | 2062.9   | 990          | CAR | HPR |
| R  | K570WW-P         | Animal    | 54 x 492  | 1700     | 914.6        | NAR | HPR |
| R  | K575SS-P         | Cesaroni  | 75 x 395  | 2493     | 1803         | CAR | HPR |
| R  | K590-15A         | Cesaroni  | 54 x 572  | 2397.6   | 1169         | CAR | HPR |
| R  | K600WH-17A       | Cesaroni  | 54 x 488  | 2129.8   | 1180         | CAR | HPR |
| T  | K600TR-P         | RATTworks | 64 x 1219 | 2170     | 1476cc/370ml | TRA | HPR |
| R  | K600WW-PS        | Animal    | 75 x 368  | 2500     | 1223.3       | NAR | HPR |
| R  | K600F-S,M,L,P    | Kosdon/AT | 54 x 403  | 1428.5   | 724.3        | TRA | HPR |
| R  | K605RR-P         | Animal    | 75 x 368  | 2410     | 1231         | NAR | HPR |
| R! | K610SK-P         | Animal    | 54 x 491  | 1531     | 861          | CAR | HPR |
| R  | K627LR-5,7,11,14 | Loki      | 38 x 1200 | 1518.691 | 688          | TRA | HPR |
| R  | K630BS-15A       | Cesaroni  | 54 x 404  | 1679.4   | 912          | TRA | HPR |
| H  | K630-P           | Contrail  | 75 x 813  | 1341     | 1400cc       | TRA | HPR |
| R  | K630WC-PS        | Gorilla   | 54 x 403  | 1414.8   | 736          | TRA | HPR |
| R  | K635-17A         | Cesaroni  | 54 x 488  | 1994.4   | 1115         | CAR | HPR |

|      |                 |           |           |          |        |     |     |
|------|-----------------|-----------|-----------|----------|--------|-----|-----|
| R    | K650SS-16A      | Cesaroni  | 54 x 488  | 1749.5   | 1281   | CAR | HPR |
| R    | K650PK-21A      | Cesaroni  | 54 x 488  | 1997.1   | 1135   | CAR | HPR |
| R    | K650T-P         | AeroTech  | 98 x 289  | 2405.7   | 1280   | TRA | HPR |
| R    | K650RR-P        | Animal    | 54 x 492  | 1840     | 931    | NAR | HPR |
| H    | K654BS-P        | Contrail  | 75 x 711  | 2132     | 1400cc | TRA | HPR |
| R    | K660-17A        | Cesaroni  | 54 x 572  | 2437     | 1177   | CAR | HPR |
| R    | K661BS-P        | Cesaroni  | 75 x 350  | 2430.4   | 1182   | CAR | HPR |
| R    | K665-P          | Cesaroni  | 54 x 403  | 1379.9   | 964    | CAR | HPR |
| R    | K670GG-P        | Animal    | 54 x 492  | 1751     | 1014   | NAR | HPR |
| R    | K670-P          | Cesaroni  | 54 x 491  | 1806.1   | 955    | CAR | HPR |
| R    | K670WC-PS       | Gorilla   | 75 x 368  | 2364.72  | 1184   | TRA | HPR |
| R!   | K675SK-18A      | Cesaroni  | 54 x 572  | 2009.6   | 1140   | CAR | HPR |
| H    | K678-P          | Contrail  | 75 x 1016 | 1847     | 2050cc | TRA | HPR |
| R    | K680R-P         | AeroTech  | 98 x 289  | 2358     | 1316   | TRA | HPR |
| R!   | K690SF-PS       | Loki      | 54 x 483  | 1616     | 920    | TRA | HPR |
| R    | K695R-M,L,P     | AeroTech  | 54 x 410  | 1514     | 903    | TRA | HPR |
| R    | K695BT-P        | Gorilla   | 54 x 403  | 1463.04  | 681    | TRA | HPR |
| R    | K700W-P         | AeroTech  | 54 x 568  | 2261     | 1303   | TRA | HPR |
| R    | K700BB-P        | Animal    | 54 x 430  | 1650     | 745    | NAR | HPR |
| R    | K700-P          | Cesaroni  | 54 x 491  | 1659.6   | 1205   | CAR | HPR |
| R    | K700RT-P        | Gorilla   | 54 x 492  | 1691     | 856    | TRA | HPR |
| H    | K707-P          | Contrail  | 75 x 813  | 1386     | 1400cc | TRA | HPR |
| R    | K710BB-P        | Animal    | 54 x 491  | 1791.4   | 880.7  | CAR | HPR |
| R    | K711WH-18A      | Cesaroni  | 54 x 572  | 2377.2   | 1398   | CAR | HPR |
| R!   | K735SK-P        | Cesaroni  | 75 x 350  | 1955.2   | 1173   | CAR | HPR |
| R    | K740CS-18A      | Cesaroni  | 54 x 404  | 1873.9   | 846.2  | CAR | HPR |
| R    | K750-18A        | Cesaroni  | 54 x 572  | 2352.5   | 1321   | CAR | HPR |
| R    | K750ST-P        | AeroTech  | 75 x 248  | 1298.7   | 595    | TRA | HPR |
| R(a) | K750W-P         | Kosdon/AT | 54 x 727  | 2468     | 1315   | NAR | HPR |
| R    | K763GT-P        | Gorilla   | 54 x 491  | 1740.27  | 975    | TRA | HPR |
| H    | K777-P          | Contrail  | 75 x 1017 | 1833     | 2050cc | TRA | HPR |
| R    | K780BS-15A      | Cesaroni  | 54 x 488  | 2107.8   | 1140   | TRA | HPR |
| R    | K780R-P         | AeroTech  | 75 x 395  | 2371     | 1268   | TRA | HPR |
| R    | K800BB-P        | Animal    | 54 x 492  | 1950     | 914    | NAR | HPR |
| R    | K805G-P         | AeroTech  | 54 x 401  | 1762     | 871.1  | TRA | HPR |
| R    | K805WC-PS       | Gorilla   | 54 x 492  | 1765     | 920    | TRA | HPR |
| R!   | K815SK-P        | Cesaroni  | 54 x 649  | 2303.7   | 1342.1 | CAR | HPR |
| R    | K820BS-17A      | Cesaroni  | 54 x 572  | 2383     | 1164   | CAR | HPR |
| R    | K828BT-P        | Gorilla   | 54 x 492  | 1786.141 | 966    | TRA | HPR |
| R    | K828FJ-S,M,L,XL | AeroTech  | 54 x 579  | 2052.15  | 1450   | TRA | HPR |
| R!   | K830SF-PS       | Loki      | 54 x 726  | 2287     | 1376   | TRA | HPR |
| R!   | K850DM-16A      | AeroTech  | 54 x 549  | 1863.13  | 1224   | TRA | HPR |

|            |                        |                |                           |                                 |                                     |                        |                           |
|------------|------------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| R          | K855-P                 | Cesaroni       | 54 x 491                  | 1725.2                          | 1205                                | CAR                    | HPR                       |
| H          | K888BM-P               | Contrail       | 76 x 1016                 | 2400                            | 2050cc                              | TRA                    | HPR                       |
| R          | K940WT-18A             | Cesaroni       | 54 x 404                  | 1632.7                          | 768                                 | CAR                    | HPR                       |
| R          | K950ST-P               | Animal         | 54 x 492                  | 1860                            | 887.4                               | NAR                    | HPR                       |
| R          | K960LWB-PS             | Loki           | 54 x 499                  | 1946                            | 960                                 | TRA                    | HPR                       |
| R          | K975WW-PS              | Animal         | 54 x 728                  | 2450                            | 1357.3                              | NAR                    | HPR                       |
| S!         | K990DM-14A             | AeroTech       | 54 x 610                  | 1867.13                         | 1224                                | NAR                    | HPR                       |
| R          | K1000S-P               | Kosdon/AT      | 54 x 728                  | 2592.7                          | 1301                                | TRA                    | HPR                       |
| R          | K1000T-PS              | AeroTech       | 75 x 383                  | 2511.5                          | 1234                                | TRA                    | HPR                       |
| R!         | K1000SK-PS             | Animal         | 54 x 728                  | 2120                            | 1297                                | NAR                    | HPR                       |
| R          | K1050W-PS              | AeroTech       | 54 x 598                  | 2426.4                          | 1265                                | TRA                    | HPR                       |
| R          | K1075GG-P              | Animal         | 54 x 728                  | 2400                            | 1399.9                              | NAR                    | HPR                       |
| R!         | K1075SK-P              | Cesaroni       | 54 x 728                  | 2245.1                          | 1259                                | CAR                    | HPR                       |
| R          | K1075RT-P              | Gorilla        | 54 x 728                  | 2413                            | 1314                                | TRA                    | HPR                       |
| R          | K1085WT-P              | Cesaroni       | 75 x 350                  | 2412                            | 1199                                | CAR                    | HPR                       |
| R          | K1100T-S,M,L,XL        | AeroTech       | 54 x 398                  | 1472                            | 771                                 | TRA                    | HPR                       |
| R          | K1103X-14A             | AeroTech       | 54 x 401                  | 1789.5                          | 830                                 | TRA                    | HPR                       |
| R          | K1127LB-14A            | Loki           | 38 x 625                  | 1284.61                         | 624                                 | TRA                    | HPR                       |
| R          | K1130BB-P              | Animal         | 54 x 728                  | 2550.7                          | 1334                                | CAR                    | HPR                       |
| R          | K1185GT-P              | Gorilla        | 54 x 728                  | 2460                            | 1314                                | TRA                    | HPR                       |
| R          | K1200-16A              | Cesaroni       | 54 x 488                  | 2014                            | 960                                 | CAR                    | HPR                       |
| R          | K1250WW-P              | Animal         | 54 x 491                  | 1950.9                          | 915                                 | CAR                    | HPR                       |
| R          | K1275R-P               | AeroTech       | 54 x 568                  | 2224.9                          | 1170                                | TRA                    | HPR                       |
| R          | K1440-17A              | Cesaroni       | 54 x 572                  | 2437                            | 1129                                | CAR                    | HPR                       |
| R          | K1499N-P               | AeroTech       | 75 x 260                  | 1321                            | 604                                 | TRA                    | HPR                       |
| R          | K1620-P                | Cesaroni       | 98 x 240                  | 2436.9                          | 1193                                | CAR                    | HPR                       |
| R          | K1720-P                | Cesaroni       | 54 x 403                  | 1176.2                          | 592                                 | CAR                    | HPR                       |
| R(a)       | K1750R-P               | Kosdon/AT      | 54 x 727                  | 2423                            | 1253                                | NAR                    | HPR                       |
| R          | K1800ST-PS             | AeroTech       | 75 x 384                  | 2443.7                          | 1113                                | TRA                    | HPR                       |
| R          | K1999N-P               | AeroTech       | 98 x 275                  | 2540                            | 1225                                | TRA                    | HPR                       |
| R          | K2000VM-P              | Cesaroni       | 75 x 350                  | 2329.9                          | 1102                                | CAR                    | HPR                       |
| R          | K2045-17A              | Cesaroni       | 54 x 404                  | 1407.6                          | 716                                 | CAR                    | HPR                       |
| R          | K2050ST-PS             | AeroTech       | 54 x 381                  | 1384.74                         | 674                                 | TRA                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>          | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| H          | L200(1685CC098L)-P     | Hypertek       | 75 x 1031                 | 2639                            | 1685cc                              | TRA                    | HPR                       |
| H          | L225FX(1685CC098LFX)-P | Hypertek       | 75 x 1031                 | 2789                            | 1685cc                              | TRA                    | HPR                       |
| R          | L265MY-P               | Cesaroni       | 54 x 649                  | 2644.6                          | 1603                                | CAR                    | HPR                       |
| R          | L339N-P                | AeroTech       | 98 x 302                  | 2793                            | 1796                                | TRA                    | HPR                       |
| H          | L350(1685CC125L)-P     | Hypertek       | 75 x 1031                 | 3042.9                          | 1685cc                              | TRA                    | HPR                       |
| H          | L355FX(1685CC125LFX)-P | Hypertek       | 75 x 1031                 | 2851                            | 1685cc                              | TRA                    | HPR                       |
| H          | L369-P                 | Contrail       | 75 x 1347                 | 3829                            | 3200cc                              | TRA                    | HPR                       |

|    |                        |           |           |         |        |     |     |
|----|------------------------|-----------|-----------|---------|--------|-----|-----|
| R  | L395MY-P               | Cesaroni  | 75 x 757  | 4936.8  | 3423   | CAR | HPR |
| R  | L400W-PS               | AeroTech  | 98 x 444  | 4654.6  | 2696   | TRA | HPR |
| R  | L425WC-P               | Gorilla   | 75 x 3500 | 3372    | 1750   | TRA | HPR |
| H  | L475(1685CC172L)-P     | Hypertek  | 75 x 1031 | 2774    | 1685cc | TRA | HPR |
| R  | L480LR-P               | Loki      | 76 x 498  | 3203.4  | 1830   | TRA | HPR |
| H  | L535FX(1685CC172LFX)-P | Hypertek  | 75 x 1031 | 2994    | 1685cc | TRA | HPR |
| H  | L540(2800CC172L)-P     | Hypertek  | 75 x 1387 | 4615    | 2800cc | TRA | HPR |
| H  | L550(1685CCRGL)-P      | Hypertek  | 75 x 1031 | 3095    | 1685cc | TRA | HPR |
| H  | L570FX(2800CC172LFX)-P | Hypertek  | 75 x 1387 | 4716    | 2800cc | TRA | HPR |
| H  | L575(2800CCRGL)-P      | Hypertek  | 75 x 1387 | 4831    | 2800cc | TRA | HPR |
| R  | L585IM-P               | Cesaroni  | 75 x 350  | 2653.4  | 1449.8 | CAR | HPR |
| H  | L600-P                 | RATTworks | 64 x 1066 | 3152    | 1858cc | TRA | HPR |
| H  | L600-P                 | WCH       | 75 x 1016 | 3161    | 2363cc | CAR | HPR |
| R  | L610-P                 | Cesaroni  | 98 x 394  | 4842    | 2415   | CAR | HPR |
| H  | L610FX(1685CCRGLFX)-P  | Hypertek  | 75 x 1031 | 3131    | 1682cc | TRA | HPR |
| H  | L625FX(2800CCRGLFX)-P  | Hypertek  | 75 x 1387 | 4951    | 2800cc | TRA | HPR |
| R  | L640DT-P               | Cesaroni  | 54 x 649  | 2772.2  | 1293   | CAR | HPR |
| R  | L645GR-P               | Cesaroni  | 75 x 486  | 3419.8  | 2072   | CAR | HPR |
| R! | L666SK-P               | Animal    | 75 x 870  | 2700    | 1646.7 | NAR | HPR |
| R  | L695BL-P               | Gorilla   | 75 x 497  | 2669    | 1650   | TRA | HPR |
| R  | L700BB-PS              | Animal    | 75 x 368  | 2590    | 1193.9 | NAR | HPR |
| R  | L730-P                 | Cesaroni  | 54 x 649  | 2765    | 1351   | CAR | HPR |
| H  | L740FX(2800CC200MFX)-P | Hypertek  | 75 x 1438 | 5033    | 2800cc | TRA | HPR |
| R  | L777WW-PS              | Animal    | 75 x 497  | 3140    | 1762.3 | NAR | HPR |
| R! | L780SF-PS              | Loki      | 76 x 498  | 3006    | 1772   | TRA | HPR |
| R  | L789RT-PS              | Gorilla   | 75 x 498  | 3251.78 | 1796   | TRA | HPR |
| R  | L800-P                 | Cesaroni  | 75 x 486  | 3759    | 1795   | CAR | HPR |
| H  | L800-P                 | Contrail  | 75 x 1372 | 3759    | 3200cc | TRA | HPR |
| R  | L805WH-P               | Cesaroni  | 54 x 649  | 2833    | 1640   | CAR | HPR |
| R! | L820SK-P               | Cesaroni  | 75 x 486  | 2945.6  | 1760   | CAR | HPR |
| R  | L840CT-P               | Loki      | 75 x 499  | 3889.93 | 2074   | TRA | HPR |
| R  | L850W-P                | AeroTech  | 75 x 531  | 3642    | 2075   | TRA | HPR |
| R  | L851WH-P               | Cesaroni  | 75 x 486  | 3683.2  | 2110   | CAR | HPR |
| S! | L875DM-PS              | AeroTech  | 75 x 653  | 3887.4  | 2608   | TRA | HPR |
| R  | L890SS-P               | Cesaroni  | 75 x 530  | 3762    | 2670   | CAR | HPR |
| R  | L900RR-P               | Animal    | 75 x 497  | 3450    | 1771   | NAR | HPR |
| R! | L900DM-PS              | AeroTech  | 75 x 653  | 3787    | 2594   | TRA | HPR |
| R  | L910CS-P               | Cesaroni  | 75 x 350  | 2856.1  | 1270   | CAR | HPR |
| R  | L930LWB-PS             | Loki      | 75 x 499  | 3587    | 1836   | TRA | HPR |
| R  | L935IM-P               | Cesaroni  | 54 x 649  | 3146.8  | 1567   | CAR | HPR |
| R  | L952W-PS               | AeroTech  | 98 x 427  | 4656    | 2749.7 | TRA | HPR |
| H  | L970(2800CC300M)-P     | Hypertek  | 75 x 1438 | 5098    | 2800cc | TRA | HPR |

|    |            |           |             |          |        |     |     |
|----|------------|-----------|-------------|----------|--------|-----|-----|
| R  | L985-P     | Cesaroni  | 54 x 728    | 2664.6   | 1295   | CAR | HPR |
| R  | L985GT-PS  | Gorilla   | 75 x 497.84 | 3580     | 1875   | TRA | HPR |
| R  | L990BS-P   | Cesaroni  | 54 x 649    | 2771     | 1369.4 | CAR | HPR |
| R  | L995RL-P   | Cesaroni  | 75 x 486    | 3618     | 1912.5 | CAR | HPR |
| S  | L1000W-18A | AeroTech  | 54 x 635    | 2666.327 | 1484   | TRA | HPR |
| R  | L1000S-P   | Kosdon/AT | 54 x 728    | 2592     | 1301   | TRA | HPR |
| R  | L1030-P    | Cesaroni  | 54 x 649    | 2787.9   | 1516   | CAR | HPR |
| R! | L1040DM-PS | AeroTech  | 75 x 653    | 3769     | 2602   | TRA | HPR |
| R  | L1040R-PS  | Loki      | 54 x 727    | 3707.7   | 1746   | TRA | HPR |
| R  | L1050BS-P  | Cesaroni  | 75 x 786    | 3727     | 1774   | CAR | HPR |
| R  | L1060GG-PS | Animal    | 75 x 497    | 3622.6   | 1917.8 | NAR | HPR |
| R! | L1065BL-BS | Gorilla   | 75 x 787    | 4209.66  | 5329   | TRA | HPR |
| R  | L1080BB-P  | Animal    | 75 x 497    | 3700     | 1717   | NAR | HPR |
| R  | L1090SS-P  | Cesaroni  | 75 x 665    | 4815     | 3490.3 | CAR | HPR |
| R  | L1090W-PS  | AeroTech  | 54 x 623    | 2671.28  | 1468   | TRA | HPR |
| R  | L1100RR-PS | Animal    | 54 x 728    | 2576     | 1346   | NAR | HPR |
| R  | L1111ST-P  | Animal    | 75 x 497    | 3480     | 1642   | TRA | HPR |
| R  | L1115-P    | Cesaroni  | 75 x 621    | 5015     | 2394   | CAR | HPR |
| R  | L1150R-P   | AeroTech  | 75 x 530    | 3517     | 1902   | TRA | HPR |
| R  | L1150WC-PS | Gorilla   | 75 x 498    | 3575.7   | 1974   | TRA | HPR |
| R  | L1170FJ-PS | AeroTech  | 75 x 665    | 4229     | 2805   | TRA | HPR |
| H! | L1222SF-P  | Contrail  | 75 x 1524   | 3895     | 3200cc | TRA | HPR |
| R! | L1250DM-P  | AeroTech  | 75 x 801    | 4374     | 2565   | TRA | HPR |
| R  | L1256WS-P  | AeroTech  | 75 x 561    | 3784.98  | 1827   | TRA | HPR |
| R  | L1276RR-PS | Animal    | 54 x 728    | 2729     | 1475   | TRA | HPR |
| R! | L1290SK-P  | Cesaroni  | 76 x 785    | 4701.1   | 2705   | CAR | HPR |
| R  | L1300R-P   | AeroTech  | 98 x 443    | 4567     | 2632   | TRA | HPR |
| R  | L1300BB-PS | Animal    | 54 x 728    | 2672     | 1314   | NAR | HPR |
| R  | L1350CS-P  | Cesaroni  | 75 x 486    | 4263.1   | 1905   | CAR | HPR |
| R  | L1355SP-P  | Cesaroni  | 75 x 621    | 4025.5   | 3012.4 | CAR | HPR |
| R! | L1365M-PS  | AeroTech  | 75 x 665    | 4780     | 2648   | TRA | HPR |
| R  | L1390G-PS  | AeroTech  | 75 x 531    | 3948.7   | 1973   | TRA | HPR |
| R  | L1395-P    | Cesaroni  | 75 x 621    | 4895.4   | 2364.9 | CAR | HPR |
| R! | L1400SK-P  | Animal    | 75 x 785    | 4744     | 2829.4 | NAR | HPR |
| R  | L1400F-P   | Kosdon/AT | 54 x 728    | 2640     | 1248   | TRA | HPR |
| R! | L1400M-PS  | AeroTech  | 75 x 653    | 4900.9   | 2648   | TRA | HPR |
| R  | L1400LW-PS | Loki      | 54 x 736    | 2850.6   | 1400   | TRA | HPR |
| R! | L1410SK-P  | Cesaroni  | 75 x 757    | 4828.3   | 2875   | CAR | HPR |
| R  | L1420R-P   | AeroTech  | 75 x 443    | 4603     | 2560   | TRA | HPR |
| H! | L1428SF-P  | Contrail  | 76 x 1753   | 4733     | 3200cc | TRA | HPR |
| R  | L1482LB-PS | Loki      | 54 x 497    | 3882     | 1839   | TRA | HPR |
| R  | L1500T-P   | AeroTech  | 98 x 665    | 5089.3   | 2490.9 | TRA | HPR |



|            |                        |                |                           |                                 |                                     |                        |                           |
|------------|------------------------|----------------|---------------------------|---------------------------------|-------------------------------------|------------------------|---------------------------|
| R          | L1520T-PS              | AeroTech       | 75 x 518                  | 3715.9                          | 1854                                | TRA                    | HPR                       |
| R          | L1685SS-P              | Cesaroni       | 75 x 757                  | 5069.3                          | 3773.1                              | CAR                    | HPR                       |
| R          | L1720WT-P              | Cesaroni       | 75 x 486                  | 3660                            | 1755                                | CAR                    | HPR                       |
| R          | L1940X-P               | AeroTech       | 75 x 473                  | 4329.2                          | 1825                                | TRA                    | HPR                       |
| R          | L2050LW-PS             | Loki           | 54 x 1041                 | 4802.43                         | 2388                                | TRA                    | HPR                       |
| R          | L2200G-P               | AeroTech       | 75 x 653                  | 5104                            | 2518                                | TRA                    | HPR                       |
| R(a)       | L2300G-P               | Kosdon/AT      | 54 x 727                  | 2756                            | 1310                                | TRA                    | HPR                       |
| S          | L2350-P                | Estes          | 152 x 210                 | 3886                            | 1680                                | NAR                    | HPR                       |
| R          | L2375WT-P              | Cesaroni       | 75 x 621                  | 4864                            | 2322                                | CAR                    | HPR                       |
| R          | L2500ST-P              | AeroTech       | 98 x 444                  | 4679                            | 2160                                | TRA                    | HPR                       |
| H          | L2525GF-P              | Contrail       | 75 x 1524                 | 4681.4                          | 3200cc                              | TRA                    | HPR                       |
| R          | L3150-P                | Cesaroni       | 98 x 394                  | 4807.8                          | 2386                                | CAR                    | HPR                       |
| R          | L3200-P                | Cesaroni       | 75 x 486                  | 3300.3                          | 1555                                | CAR                    | HPR                       |
| <b>Tip</b> | <b>Tanımı</b>          | <b>Üretici</b> | <b>Boyutları<br/>(mm)</b> | <b>İtici kuvvet<br/>(N-san)</b> | <b>İtici yakıt<br/>Ağırlığı (g)</b> | <b>Test<br/>Kurumu</b> | <b>Yarışma<br/>Onaylı</b> |
| R          | M520-P                 | Cesaroni       | 98 x 548                  | 7278.5                          | 3713                                | CAR                    | HPR                       |
| R          | M650W-P                | AeroTech       | 75 x 801                  | 5964                            | 3351                                | NAR                    | HPR                       |
| R          | M685W-PS               | AeroTech       | 75 x 911                  | 7560.8                          | 4320                                | TRA                    | HPR                       |
| H          | M700-P                 | WCH            | 75 x 1473                 | 5592                            | 3951cc                              | CAR                    | HPR                       |
| H          | M711BS-P               | Contrail       | 75 x 1371                 | 5507                            | 3200cc                              | TRA                    | HPR                       |
| H          | M740(2800CC200M)-P     | Hypertek       | 75 x 1438                 | 5143                            | 2800cc                              | TRA                    | HPR                       |
| R          | M745WC-PS              | Gorilla        | 75 x 785                  | 5368                            | 2900                                | TRA                    | HPR                       |
| R          | M750W-P                | AeroTech       | 98 x 732                  | 9325                            | 5300                                | NAR                    | HPR                       |
| R          | M795-P                 | Cesaroni       | 98 x 702                  | 10133                           | 4892                                | CAR                    | HPR                       |
| R          | M840WH/LB-P            | Cesaroni       | 75 x 879.3                | 7521.2                          | 4249                                | CAR                    | HPR                       |
| R          | M900-P                 | Loki           | 76 x 785                  | 5332.4                          | 3030                                | TRA                    | HPR                       |
| H          | M900-P                 | RATTworks      | 69 x 1828                 | 6463.5                          | 3716cc                              | TRA                    | HPR                       |
| H          | M956(3500CCRGM)-P      | Hypertek       | 98 x 1166                 | 6421                            | 3500cc                              | TRA                    | HPR                       |
| H          | M960FX(2800CC300MFX)-P | Hypertek       | 75 x 1438                 | 5126                            | 2800cc                              | TRA                    | HPR                       |
| H          | M1000(4630CCRGM)-P     | Hypertek       | 98 x 1405                 | 9155                            | 4630cc                              | TRA                    | HPR                       |
| H          | M1001(5478CCRGM)-P     | Hypertek       | 98 x 1438                 | 9835                            | 5478cc                              | TRA                    | HPR                       |
| H          | M1010FX(4630CCRGMFX)-P | Hypertek       | 98 x 1405                 | 9114                            | 4630cc                              | TRA                    | HPR                       |
| H          | M1015FX(3500CCRGMFX)-P | Hypertek       | 98 x 1166                 | 6334                            | 3500cc                              | TRA                    | HPR                       |
| R          | M1025WC-P              | Gorilla        | 98 x 870                  | 9581                            | 5329                                | TRA                    | HPR                       |
| H          | M1040FX(4630CCRGMFX)-P | Hypertek       | 98 x 1438                 | 10098                           | 4638cc                              | TRA                    | HPR                       |
| R          | M1060-P                | Cesaroni       | 98 x 548                  | 7441                            | 3622                                | CAR                    | HPR                       |
| R!         | M1075DM-PS             | AeroTech       | 98 x 649                  | 5571                            | 3846                                | TRA                    | HPR                       |
| R          | M1085WC-PS             | Gorilla        | 75 x 1039                 | 6958                            | 3932                                | TRA                    | HPR                       |
| R          | M1101WH-P              | Cesaroni       | 75 x 621                  | 5197.6                          | 2993                                | CAR                    | HPR                       |
| R          | M1160GR-P              | Cesaroni       | 75 x 757                  | 5880.2                          | 3454                                | CAR                    | HPR                       |
| R!         | M1200SF-PS             | Loki           | 76 x 784                  | 5122.6                          | 3130                                | TRA                    | HPR                       |
| R          | M1230IM-P              | Cesaroni       | 75 x 621                  | 5506.5                          | 2900                                | CAR                    | HPR                       |

|      |            |           |            |          |        |     |     |
|------|------------|-----------|------------|----------|--------|-----|-----|
| R    | M1290WH-P  | Cesaroni  | 98 x 548   | 7649.3   | 4295   | CAR | HPR |
| R    | M1297W-P   | AeroTech  | 75 x 665   | 5416.6   | 2722   | TRA | HPR |
| R    | M1300IM-P  | Cesaroni  | 75 x 757   | 6438.2   | 3437   | CAR | HPR |
| R!   | M1305M-PS  | AeroTech  | 98 x 649   | 6891     | 4080   | TRA | HPR |
| R    | M1315W-P   | AeroTech  | 75 x 801   | 6713.5   | 3499.4 | TRA | HPR |
| S    | M1340W-PS  | AeroTech  | 98 x 556   | 7368.911 | 4036   | TRA | HPR |
| S    | M1350W-PS  | AeroTech  | 75 x 622   | 5178.154 | 4808   | TRA | HPR |
| R    | M1350WW-PS | Animal    | 75 x 785   | 5725     | 2927.3 | NAR | HPR |
| R    | M1355RT-PS | Gorilla   | 75 x 787   | 5164.65  | 5216   | TRA | HPR |
| R    | M1378LR-PS | Loki      | 54 x 1114  | 5363     | 2600   | TRA | HPR |
| R    | M1400-P    | Cesaroni  | 75 x 757   | 6251     | 2992   | CAR | HPR |
| R    | M1401WH-P  | Cesaroni  | 75 x 757   | 6268.3   | 3508   | CAR | HPR |
| R    | M1419W-P   | AeroTech  | 98 x 579   | 7755.5   | 4077   | TRA | HPR |
| R    | M1450-P    | Cesaroni  | 98 x 702   | 9955     | 4830   | CAR | HPR |
| R(a) | M1450W-P   | Kosdon/AT | 75 x 1039  | 7813     | 4150   | NAR | HPR |
| R    | M1480RR-PS | Animal    | 75 x 785   | 5800     | 3000   | NAR | HPR |
| H    | M1491BM-P  | Contrail  | 76 x 1372  | 5675.6   | 3200cc | TRA | HPR |
| R    | M1500G-P   | AeroTech  | 75 x 653   | 5220     | 2631   | TRA | HPR |
| R    | M1520BS-P  | Cesaroni  | 98 x 548   | 7579     | 3602   | CAR | HPR |
| R    | M1540IM-P  | Cesaroni  | 75 x 757   | 6819.4   | 3624.4 | CAR | HPR |
| R    | M1545GR-P  | Cesaroni  | 75 x 1025  | 8186.7   | 4835   | CAR | HPR |
| R    | M1550R-P   | AeroTech  | 75 x 801   | 5600     | 3170   | TRA | HPR |
| R    | M1560WT-P  | Cesaroni  | 98 x 394   | 5342     | 2452   | CAR | HPR |
| R!   | M1565BL-P  | Gorilla   | 98 x 870   | 7533     | 4992   | TRA | HPR |
| H    | M1575-P    | Contrail  | 98 x 1524  | 6547     | 5300cc | TRA | HPR |
| R    | M1590CL-P  | Cesaroni  | 75 x 893   | 7544.6   | 3590   | CAR | HPR |
| R    | M1600R-P   | AeroTech  | 98 x 579   | 7084     | 4026   | TRA | HPR |
| R!   | M1610BL-PS | Gorilla   | 75 x 1039  | 5973.52  | 3654   | TRA | HPR |
| R    | M1630TT-P  | Cesaroni  | 75 x 1039  | 8212.1   | 3948   | CAR | HPR |
| R    | M1650CT-PS | Loki      | 76 x 784   | 6535     | 3230   | TRA | HPR |
| R    | M1665WC-PS | Gorilla   | 75 x 787   | 5705.01  | 5579   | TRA | HPR |
| R    | M1670BS-P  | Cesaroni  | 75 x 757   | 6041.7   | 2956.1 | CAR | HPR |
| R    | M1675PK-P  | Cesaroni  | 75 x 757   | 6162     | 3019   | CAR | HPR |
| R!   | M1730SK-P  | Animal    | 98 x 870   | 8115     | 4945.2 | NAR | HPR |
| R!   | M1770SK-P  | Cesaroni  | 75 x 893   | 5933.4   | 3520   | CAR | HPR |
| R    | M1780NT-PS | AeroTech  | 75 x 653   | 5783     | 2560   | TRA | HPR |
| R!   | M1790SK-P  | Cesaroni  | 98 x 702   | 8088.9   | 4706   | CAR | HPR |
| R    | M1800FJ-P  | AeroTech  | 98 x 665   | 8200     | 9163   | TRA | HPR |
| R    | M1800BS-P  | Cesaroni  | 98 x 702   | 9867.7   | 4802   | CAR | HPR |
| R    | M1810RL-P  | Cesaroni  | 75 x 757   | 6132     | 3196   | CAR | HPR |
| R    | M1830CS-P  | Cesaroni  | 75 x 621   | 5603.7   | 2542   | CAR | HPR |
| R    | M1845NT-PS | AeroTech  | 98 x 597.9 | 8307.79  | 3772   | TRA | HPR |

|      |            |           |            |         |        |     |     |
|------|------------|-----------|------------|---------|--------|-----|-----|
| R    | M1850W-P   | AeroTech  | 75 x 924   | 7680    | 4009   | TRA | HPR |
| R    | M1850GG-P  | Animal    | 75 x 781   | 5920    | 3375   | TRA | HPR |
| R    | M1882LW-PS | Loki      | 76 x 787   | 6303    | 3130   | TRA | HPR |
| R    | M1890-P    | Cesaroni  | 98 x 702   | 9875.6  | 5280   | CAR | HPR |
| R    | M1900BB-P  | Animal    | 75 x 785   | 6100    | 2733   | NAR | HPR |
| R    | M1939W-PS  | AeroTech  | 98 x 732   | 10482   | 5719.1 | TRA | HPR |
| R!   | M1969SF-PS | Loki      | 76 x 1038  | 7295.78 | 4266   | TRA | HPR |
| R    | M2000R-P   | AeroTech  | 98 x 732   | 9218    | 5368   | TRA | HPR |
| R    | M2020IM-P  | Cesaroni  | 75 x 893   | 8429.4  | 4349   | CAR | HPR |
| R    | M2045BS-P  | Cesaroni  | 75 x 893   | 7388    | 3547   | CAR | HPR |
| R    | M2050X-P   | AeroTech  | 75 x 700   | 5493.35 | 2268   | TRA | HPR |
| R!   | M2050SK-P  | Cesaroni  | 75 x 1039  | 6744.6  | 3870   | CAR | HPR |
| R    | M2075SS-P  | Cesaroni  | 75 x 893   | 6286.6  | 3982   | CAR | HPR |
| R!   | M2080SK-P  | Cesaroni  | 75 x 1025  | 6827.3  | 4107   | CAR | HPR |
| R    | M2100G-P   | AeroTech  | 98 x 598   | 7802    | 3948   | TRA | HPR |
| R    | M2150RL-P  | Cesaroni  | 75 x 893   | 7455.4  | 3835   | CAR | HPR |
| R!   | M2200SK-PS | Animal    | 75 x 1039  | 6350    | 3766   | NAR | HPR |
| R    | M2245-P    | Cesaroni  | 75 x 1025  | 9976.7  | 5074   | CAR | HPR |
| R    | M2250CS-P  | Cesaroni  | 75 x 621   | 5472.2  | 2489   | CAR | HPR |
| H    | M2281BF-P  | Contrail  | 75 x 1524  | 5481    | 5300cc | TRA | HPR |
| R    | M2400T-P   | AeroTech  | 98 x 597   | 7717    | 3692.6 | TRA | HPR |
| R    | M2500T-P   | AeroTech  | 98 x 751   | 9671    | 4711.2 | TRA | HPR |
| R    | M2500GG-PS | Animal    | 75 x 1039  | 7800    | 4248   | NAR | HPR |
| R    | M2505-P    | Cesaroni  | 98 x 579   | 7450    | 3339   | CAR | HPR |
| R    | M2550LB-PS | Loki      | 76 x 785   | 6502    | 3065   | TRA | HPR |
| H    | M2700BS-P  | Contrail  | 98 x 1524  | 6034    | 5300cc | TRA | HPR |
| H    | M2800BG-P  | Contrail  | 98 x 1524  | 6060    | 5300cc | TRA | HPR |
| R(a) | M2900R-P   | Kosdon/AT | 75 x 1039  | 5290    | 3755   | NAR | HPR |
| R    | M2925WC-PS | Gorilla   | 75 x 1039  | 7897.8  | 3820   | TRA | HPR |
| R    | M3000ST-P  | Animal    | 75 x 1039  | 7367    | 3819   | TRA | HPR |
| R    | M3000LW-PS | Loki      | 76 x 1039  | 8924.3  | 4350   | TRA | HPR |
| R    | M3100WT-P  | Cesaroni  | 75 x 757   | 6117.8  | 2903   | CAR | HPR |
| R    | M3400WT-P  | Cesaroni  | 98 x 702   | 9994.5  | 4452   | CAR | HPR |
| R    | M3464LB-PS | Loki      | 76 x 1038  | 9395    | 4464   | TRA | HPR |
| R(a) | M3500R-P   | Kosdon/AT | 75 x 1039  | 7310    | 3755   | NAR | HPR |
| R    | M3700WT-P  | Cesaroni  | 75 x 803   | 6800.3  | 3019   | CAR | HPR |
| R    | M4500ST-P  | AeroTech  | 98 x 7680  | 7277    | 3425   | TRA | HPR |
| R    | M4770-P    | Cesaroni  | 98 x 548   | 7312.4  | 3579   | CAR | HPR |
| R    | M6000ST-P  | AeroTech  | 98 x 749.3 | 8247.1  | 3868   | TRA | HPR |
| R    | M6000ST-PS | AeroTech  | 98 x 1024  | 9608    | 4128   | TRA | HPR |
| R    | M6400VM-P  | Cesaroni  | 98 x 702   | 8634.4  | 4175   | CAR | HPR |

| Tip | Tanımı     | Üretici  | Boyutları<br>(mm) | İtici kuvvet<br>(N-san) | İtici yakıt<br>Ağırlığı (g) | Test<br>Kurumu | Yarışma<br>Onaylı |
|-----|------------|----------|-------------------|-------------------------|-----------------------------|----------------|-------------------|
| R   | N1000W-P   | AeroTech | 98 x 1046         | 14126                   | 7925                        | NAR            | HPR               |
| R   | N1100-P    | Cesaroni | 98 x 1046         | 14005                   | 6790                        | CAR            | HPR               |
| R   | N1560WH-P  | Cesaroni | 98 x 1239         | 16803                   | 9946                        | CAR            | HPR               |
| R   | N1720WC-PS | Gorilla  | 98 x 1213         | 14236.77                | 7456                        | TRA            | HPR               |
| R   | N1800WH-P  | Cesaroni | 98 x 702          | 10366.9                 | 5727                        | CAR            | HPR               |
| R   | N1975GR-P  | Cesaroni | 98 x 1010         | 14271.6                 | 8560                        | CAR            | HPR               |
| S   | N1975W-PS  | AeroTech | 98 x 1040         | 13893.1                 | 7676                        | TRA            | HPR               |
| R   | N2000W-P   | AeroTech | 98 x 1046         | 13347.1                 | 7752.6                      | TRA            | HPR               |
| R   | N2020WW-P  | Animal   | 98 x 870          | 10281                   | 5160.9                      | NAR            | HPR               |
| R   | N2200PK-P  | Cesaroni | 98 x 1010         | 12066.4                 | 6122                        | CAR            | HPR               |
| R!  | N2220DM-P  | AeroTech | 98 x 1018         | 10657                   | 7183                        | TRA            | HPR               |
| R   | N2500-P    | Cesaroni | 98 x 1010         | 13633                   | 6778                        | CAR            | HPR               |
| R   | N2501WH-P  | Cesaroni | 98 x 1010         | 15227.2                 | 8496                        | CAR            | HPR               |
| R   | N2540GR-P  | Cesaroni | 98 x 1239         | 17907                   | 10700                       | CAR            | HPR               |
| R   | N2600GG-P  | Animal   | 98 x 870          | 10607                   | 5591.4                      | NAR            | HPR               |
| R!  | N2600SK-P  | Cesaroni | 98 x 1010         | 11077.3                 | 6618                        | CAR            | HPR               |
| R   | N2700BB-P  | Animal   | 98 x 870          | 11452                   | 5147.1                      | NAR            | HPR               |
| R   | N2712WC-PS | Gorilla  | 98 x 870          | 10812.7                 | 5286                        | TRA            | HPR               |
| R   | N2800WW-P  | Animal   | 98 x 1213         | 14802                   | 7694.7                      | NAR            | HPR               |
| R   | N2850BS-P  | Cesaroni | 98 x 1010         | 13766.9                 | 6759                        | CAR            | HPR               |
| R!  | N2876SK-PS | Animal   | 98 x 122          | 11939.73                | 13675                       | TRA            | HPR               |
| R   | N2900CL-P  | Cesaroni | 98 x 1239         | 17613.7                 | 8449                        | CAR            | HPR               |
| R   | N3180-p    | Cesaroni | 98 x 1010         | 14200.1                 | 7460                        | CAR            | HPR               |
| R   | N3300R-PS  | AeroTech | 98 x<br>1059.46   | 14041.36                | 7512                        | TRA            | HPR               |
| R   | N3301WH-P  | Cesaroni | 98 x 1239         | 19317.6                 | 10658                       | CAR            | HPR               |
| R!  | N3400SK-P  | Cesaroni | 98 x 1239         | 14263.3                 | 8282                        | CAR            | HPR               |
| R   | N3800BS-P  | Cesaroni | 98 x 1239         | 17631.7                 | 8449                        | CAR            | HPR               |
| R   | N3800LW-PS | Loki     | 98 x 1016         | 12490.28                | 6125                        | TRA            | HPR               |
| R   | N4000BB-P  | Animal   | 98 x 1213         | 16461                   | 7565.7                      | NAR            | HPR               |
| R   | N4100RL-P  | Cesaroni | 98 x 1239         | 17790.3                 | 9101                        | CAR            | HPR               |
| R   | N4800T-P   | AeroTech | 98 x 1201         | 19361                   | 9570.8                      | TRA            | HPR               |
| R   | N5600WT-P  | Cesaroni | 98 x 1010         | 13628.2                 | 6363                        | CAR            | HPR               |
| R   | N5800CS-P  | Cesaroni | 98 x 1239         | 20145.7                 | 9021                        | CAR            | HPR               |
| R   | N10000-P   | Cesaroni | 98 x 1010         | 10347                   | 5200                        | CAR            | HPR               |
| Tip | Tanımı     | Üretici  | Boyutları<br>(mm) | İtici kuvvet<br>(N-san) | İtici yakıt<br>Ağırlığı (g) | Test<br>Kurumu | Yarışma<br>Onaylı |
| R   | O2645BL-P  | Gorilla  | 152 x 1206        | 24333                   | 15149                       | TRA            | HPR               |
| R   | O3400IM-P  | Cesaroni | 98 x 1239         | 21062.2                 | 10930                       | CAR            | HPR               |
| R!  | O3700SK-P  | Cesaroni | 161 x 957         | 29919.9                 | 17157                       | CAR            | HPR               |
| R   | O4900BS-P  | Cesaroni | 161 x 957         | 37148.5                 | 17700                       | CAR            | HPR               |

|   |            |          |            |          |         |     |     |
|---|------------|----------|------------|----------|---------|-----|-----|
| R | O4925WC-P  | Gorilla  | 152 x 1219 | 33005.07 | 16575   | TRA | HPR |
| R | O5100-P    | Cesaroni | 161 x 803  | 29990    | 13245   | CAR | HPR |
| S | O5280X-P   | AeroTech | 98 x 1499  | 22223    | 9779    | TRA | HPR |
| R | O5800-P    | Cesaroni | 161 x 754  | 30605.7  | 13950   | CAR | HPR |
| S | O6000W-P   | AeroTech | 152 x 1120 | 39620    | 22000   | NAR | HPR |
| H | O6300-P    | Contrail | 156 x 1829 | 27244    | 15000cc | TRA | HPR |
| R | O8000-P    | Cesaroni | 161 x 957  | 40960    | 18610   | CAR | HPR |
| S | O25000VM-P | Cesaroni | 132 x 1407 | 30795    | 14471   | CAR | HPR |