

WASC 2038

UK Aerospace and
Weapons Programme
Summary of Solid
Rocket Motors made
in UK

United Kingdom Aerospace and Weapons Proc

Solid Rocket Motors

011103 L = length, S = span, W = weight

Name	Description	Remarks	Parti
Albatross	Sustainer motor for Thunderbird.	Made by Bristol Aerojet designed by PERME (Propellant and Explosives Research and Manufacturing Establishment).	N/A
Bantam	Sustainer motor for Skua	Made by Bristol Aerojet. Designed by PERME.	Rated at L = 4.8ft (1.4m) (238Kg) Ø = 4.
Basset	Boost / Sustainer motor for Fairey Project 12 (Swingfire Test Vehicle).	Designed by IMI/SRS (Imperial Metal Industries / Summerfield Research Station).	Rated at
Bayard	Boost / sustainer motor for ALARM	Made by Bristol Aerojet	N/A
Blackbird	Solid rocket booster	Used to boost Blue Sky AAM in trials	N/A
Blackcap	Boost rocket motor for Seawolf.	Made by Bristol Aerojet designed by PERME. Entered service.	N/A
Borzoi	Boost rocket motor for Blue Envoy.	Large boost rocket used for Blue Envoy related XTV and XBE trials. Two Bulldog boost motors in tandem. Also referred to as a test vehicle.	N/A
Brambling	Rocket motor for Starstreak SAM.	First stage boost motor. Made by Royal Ordnance.	N/A
Bulldog	Boost rocket motor for ramjet test vehicles	Used on the Bristol XTV.9, XBE and BET.9 for Blue Envoy development. Two used in tandem to produce Borzoi. Designed by SRS.	L = 10.7ft (3.26) (510.4Kg) Ø =
Bullpup	Boost rocket motor for ramjet test vehicles	Used on the Bristol CRRTV. Designed by SRS.	L = 9.8ft (3m), (252.3Kg) Ø =
Buzzard	Solid rocket motor for Red Dean.	Cancelled with Red Dean. Made by Bristol Aerojet. Designed by PERME.	L = 8.3ft (2.5m) (99Kg) Ø = 10i at 6750lb (30K
Cadiz	Solid rocket motor.	Designed by IMI	N/A

Chick	Booster for Petrel (x3) and Skua (x1 or 4).	Made by Bristol Aerojet designed by PERME.	Rated at 4520l 1.8ft (0.55m), ϕ
Chow	Booster motor for Sea Dart.	Made by Bristol Aerojet designed by SRS. Entered service.	N/A
Crake	Sustainer motor for Blowpipe.	Made by Bristol Aerojet designed by PERME. Entered service.	N/A
Cuckoo	Solid rocket motor for Skylark (CTV-5 Series 3) and Blue Water.	Also used to boost re-entry vehicle speed on Black Knight. Made by Bristol Aerojet designed by PERME.	L = 1.4ft (0.48r (238Kg) ϕ = 17 Rated at 3750l Cuckoo II was (7.6KN).
Deacon	Boost Rocket Motor	Used in early SAGW test vehicle trial, e.g. Bristol JTV. Essentially a Demon with US propellant.	L = 9.25ft (2.8r (30.1Kg) ϕ = 7
Deerhound	Sustainer motor for Sea Slug.	Made by Bristol Aerojet designed by SRS.	N/A
Demon	Boosters for GPV and Bristol XTV.	Four pairs fitted to GPV.	L = 9.25ft (2.8r (30.1Kg) ϕ = 7
Elkhound	Sustainer motor for Red Shoes.	Made by Bristol Aerojet designed by SRS.	L = 10.3ft (3.15 (387.9Kg) ϕ =
Falcon	Solid rocket boost motor for Red Dean.	Cancelled with Red Dean.	L = 8.25ft (2.5r (104.8Kg) ϕ = (27.3cm) Ratec (62.3KN).
Foxhound	Sustainer motor for Sea Slug.	Made by Bristol Aerojet designed by SRS. Replaced the NK.1 liquid fuelled motor.	L = 9ft (2.74m) (571.7Kg) ϕ =
Goldfinch	Booster motor for Jaguar and Jabiru test vehicles.	Made by Bristol Aerojet designed by PERME.	N/A
Gosling	Solid boost rocket motors for Bloodhound.	Made by Bristol Aerojet designed by PERME. Entered service. Versions I to IV.	L = 11ft (3.35r (223.7Kg) ϕ = Rated at 2500l
Heron	Booster for Fulmar test vehicle.	Entered service.	Rated at 2400l
Hoopoe	Sustainer motor for Sky Flash.	Anglicised AIM-7 Sparrow motor. Made by Bristol Aerojet.	N/A
Imp	Solid rocket motor. Three types in the series.	Very small unit used for flutter testing in manned aircraft	L = 0.28ft (0.08 (0.17Kg) ϕ = 1 at 200lb
Jackdaw	Solid rocket boost motor for 2/5 scale Blue Steel model	Used to flight test Blue Steel aerodynamics. Had two exhausts from a single	Rated at 1480l 6.6ft (2m), W = (140.6Kg) ϕ =

		chamber.	
Kestrel	Solid rocket motor for 54in Black Knight.	Used to boost RV during trials.	Rated at 5400l
Ladybird	Solid rocket motor	Developed by RPD.	L = 3.3ft (1m), (43.1Kg) Ø = 8 Rated at 1600l
LAP.1	Solid boost rocket motors for early SAGW trials	Light Alloy case with Plastic propellant. Replaced cordite-based motors.	L = 64.7in (164 (30.1Kg) Ø = 5
LAP.2	Solid boost rocket motors for early SAGW trials	Light Alloy case with Plastic propellant. Replaced cordite-based motors.	L = 63.5in (161 71.5lb (32.5Kg (12.7cm)
Lapwing	Boost rocket motor for Petrel test vehicle.	Made by Bristol Aerojet	Rated at 1010l (1.8m) Ø = 7in
Linnet	Solid rocket boost motor for Red Top.	Entered service on Red Top.	L = 6.5ft (1.98r (52.2Kg) Ø = 8 at 6510lb (28.9
Lobster I	Solid rocket motor	3rd stage booster for Jaguar / HRV / Jabiru .	L = 5.8ft (1.77r (32.1Kg) Ø = 5 Rated at 7200l
Lobster II	Solid rocket motor	3rd stage booster for Jaguar / HRV / Jabiru.	L = 3.6ft (1m), (20.9Kg) Ø = 5 Rated at 6900l
Magpie	Boost rocket motor for early GW trials.	First steel cased motor. Used cordite propellant. A longer version was the Mayfly. Related to Firestreak motor.	L = 3.25ft (0.99 (40.8Kg) Ø = 8
Magpie	Rocket motor for Firestreak.	Made by Bristol Aerojet designed by PERME. Entered service.	L = 3ft (0.91m) (44.5Kg) Ø = 1 Rated at 6600l
Matapan	Possible sustainer motor for Sea Skua.	Sea Skua entered service.	N/A
Mayfly	Rocket motor for CTV.5 series 2.	Longer version of the Magpie. Also used to boost Red Rapier, Red Duster, Red Shoes and early XTV.	L = 10.3ft (3.14 (178.3Kg) Ø = Rated at 1400l
Nuthatch	Rocket motor on ALARM.	Replaced by Bayer Chemie motor in service. Made by Bristol Aerojet designed by PERME.	N/A
Pointer	Boost/Sustain motor for Swingfire.	Designed by IMI/SRS. Entered service.	N/A
Ratcatcher	Solid rocket sustainer motor for Red Shoes.	Designed and built by English Electric.	L = 10.2ft (3.1r (356.2Kg) Ø =

Raven	Booster used on Skylark.	Slow burning, so gave gentler acceleration. Made by Bristol Aerojet designed by PERME.	L = 16.8ft (5.1r (1175.6Kg) Ø = (45.2cm) Rated (57.8KN)
Retriever	Boost motor for Sea Slug.	Made by Bristol Aerojet designed by SRS. Essentially a Gosling with IMI propellant and a new nozzle.	N/A
Rook	Booster rocket used on RAE test vehicles. Faster burning version of Raven.	Made by Bristol Aerojet. Started off boosting models of supersonic aircraft at Aberporth.	L = 17.3ft (5.1r (1039Kg) Ø = ' Rated at 62000
Scarab	Solid rocket motor	Developed by RPD. Intended for JATO on Valiant.	L = 5.4ft (1.6m (78Kg) Ø = 8.2 Rated at 33500
Sealyham	Rocket motor on Seacat.	Made by Bristol Aerojet designed by SRS. Entered service.	N/A
Siskin	Solid rocket motor.	Fitted to Black Arrow to maintain positive G in fuel tanks.	L = 1.9ft (0.6m (14.1cm)
Smokey Joe	Sustainer motor for Red Shoes.	Replaced by Albatross. A cut down version was used on Green Cheese Anti-ship Missile	L = 10.2ft (3.1r (406.1Kg) Ø = (45.3cm).
Snipe	Sustainer for Fulmar test vehicle.	Entered service.	Rated at 37500 L = 7.25ft (2.2r (26cm)
Stonechat	Rocket motor for Falstaff.	Made by Bristol Aerojet designed by PERME.	N/A
Stork	Solid rocket motor	Early boost rocket for GW trials	L = 54in (137cm (15.5cm)
Swallow	Sustainer motors for Stooze (q.v.).	Made by Bristol Aerojet designed by PERME.	N/A
Thrush	Solid rocket booster	Used to boost Blue Sky AAM in trials	N/A
Titus	Rocket motor for Starstreak SAM.	Second stage motor. Made by Royal Ordnance.	N/A
Troy	Rocket motor for Rapier.	Made by Bristol Aerojet designed by SRS.	N/A
Wagtail	Solid rocket motor.	Designed by PERME	N/A
Waterbaby	4.3in rocket motor.	Used to boost Red Rapier in trials. Proposed to boost early SR.53.	N/A
Waxwing	Spherical solid rocket motor.	Apogee kick motor used	Rated at 35000

		for injecting the satellite into orbit. Made by Bristol Aerojet designed by PERME. Entered service.	
Wolfhound	Sustainer motor for Red Shoes.	Made by Bristol Aerojet designed by SRS.	L = 10.25ft (3.1 (431Kg) Ø = 17
Woodpecker	Boost/Sustain motor for Orange William.	Designed by BAJ. Cancelled.	N/A