

EO 15-5C-2A

ROYAL CANADIAN AIR FORCE



**DESCRIPTION AND MAINTENANCE
INSTRUCTIONS**

**SPARK PLUGS APPROVED TYPES
FOR
RCAF AIRCRAFT ENGINES**

(This EO replaces EO 15-5C-2A dated 29 Apr 64)

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

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1 The spark plugs listed are not in order of preference. In any one engine, all spark plugs installed are to be of the same make, but do not need to be of the same model. The inter-mixing of spark plug models, i.e. AC 275E and AC 275F, Champion REA37N and REB37N, RHA32N and RHB32N or RHA37N and RHB37N is allowed providing they are identical to heat range and spark gap. This inter-mixing of spark plug models enables the user units to exhaust small quantities (less a complete engine set). See EO 15-5C-2A for the make, model and spark plug gap. See EO 15-5CA-2A for heat range of Champion plugs and EO 15-5CA-2C for heat range of AC plugs.

2 Spark plugs approved models for RCAF aircraft engines in this EO will have precedence over all spark plugs listed in applicable engine or aircraft EO's.

3 For detailed information regarding the introduction of model numbering system for Champion spark plugs, see EO 15-5CA-2A, and for AC spark plugs, see EO 15-5CA-2C.

4 Spark plugs are to be changed to periods as detailed in relevant aircraft maintenance schedules. Hours shown opposite the spark plug models indicate the minimum desired spark plug service life. To ensure success of this programme, operators must ensure that spark plugs are used in a most economical manner and that wasteful practices are eliminated. Spark plugs are to be serviced by operators entitled to servicing tools and are to be re-used in all cases providing they pass visual inspection and are cleaned and found serviceable during test as per EO 15-5C-2. Fouled spark plugs removed are to be serviced

in all cases in accordance with EO 15-5C-2. Premature replacement of all types of plugs will be confined to those determined faulty through engine trouble-shooting procedures. In cases where analyzers are installed in the aircraft, the ignition system trouble-shooting, pattern interpretation alone will not be considered as justification for spark plug rejection. All abnormal firing indications of the analyzers will be confirmed either by visual or electrical checks of the components involved. Due to use of the ignition analyzer it has been found to be more economical to wear out the spark plugs in service. The analyzer equipment provides the means whereby the performance of the engines ignition system can be monitored either in flight or at a regularly scheduled maintenance check period. Operators should extend the service life beyond those hours indicated opposite the spark plug models provided that the analyzer patterns indicate the ignition system is satisfactory for continued safe flight operations or where analyzers are not used, in determination of ignition system condition, the electrode gaps and electrode erosion is within limits. Operators who do not use ignition analyzers are not to remove spark plugs just because they have reached the desired service life as shown opposite the spark plug models, but shall use trouble-shooting procedures and remove plugs as required or when gap erosion limits are exceeded.

5 Spark plug servicing shall be based upon the condition of the spark plugs as outlined in EO 15-5C-2. The first servicing shall be identified by painting a green band (using heat resistant paint) about 1/4 inch wide on the barrel of the spark plug just above the hex; second servicing shall be recorded by painting a red band adjacent to the green band.

Aircraft	Engine	Make	Model	Sec/Ref.	Gap	Base	Lead End
Albatross CSR 110	Wright R1820-82	Champion	RHB37N (360 hrs)	37S/2925-21-803-3821	.015 to .018	18 MM	3/4 - 20
Argus	Wright R3350-EA1	Lodge AC	RS35R (800 hrs) 275F (400 hrs)	37S/2925-21-801-8295 37S/2925-21-804-1563	.023 to .025 .015 to .018	18 MM 18 MM	3/4 - 20 3/4 - 20
Bristol Freighter	Hercules 734	Lodge KLG	LB3/3 (600 hrs) KB5 (600 hrs)	37S/2925-21-801-8302 37S/2925-21-807-4799	.008 to .010 .008 to .010	14 MM 14 MM	11/16 - 24 11/16 - 24
Caribou	P&W R2000-7M2	Champion	RHB37N (400 hrs)	37S/2925-21-803-3821	.015 to .018	18 MM	3/4 - 20
Cessna L19A	Continental O-470-11	Champion Champion	C26S (400 hrs) REM40E (400 hrs)	37S/2925-21-801-8299 Class 2925-21-809-0694	.012 to .015 .015 to .018	18 MM 18 MM	5/8 - 24 5/8 - 24
Cessna L19L	Continental O-470-L	Champion Champion	C26S (400 hrs) REM40E (400 hrs)	37S/2925-21-801-8299 Class 2925-21-809-0694	.021 to .015 .015 to .018	18 MM 18 MM	5/8 - 24 5/8 - 24
Chipmunk	Gypsy Major (all series)	KLG	RV12/3 (200 hrs)	37S/2925-21-801-8296	.012 to .015	12 MM	11/16 - 24
Dakota	P&W R1830 (all series)	Champion Lodge	REB37N (500 hrs) RS19/2RS (500 hrs)	37S/2925-21-801-8276 37S/2925-21-801-8301	.013 to .016 .012 to .015	18 MM 18 MM	5/8 - 24 5/8 - 24
Expeditor	P&W R985-AN14B	Champion	C26S (400 hrs)	37S/2925-21-801-8299	.012 to .015	18 MM	5/8 - 24
Harvard	P&W R1340 -AN1, -S3H1 & -PC1	Champion	C26S (400 hrs)	37S/2925-21-801-8299	.012 to .015	18 MM	5/8 - 24
Hiller CH112	Lycoming VO-540-BID	AC	SR87 (200 hrs)	37S/2925-21-805-0138	.018 to .022	18 MM	5/8 - 24
Lancaster	Packard Merlin 224-225	Lodge	RS5/7 (400 hrs)	37S/2925-21-801-8298	.015 to .030	14 MM	11/16 - 24
Neptune	Wright R3350-32W	Lodge AC	RS35R (600 Hrs) 275F (400 Hrs)	37S/2925-21-801-8295 37S/2925-21-804-1563	.023 to .025 .015 to .018	18 MM 18 MM	3/4 - 20 3/4 - 20
North Star	Rolls-Royce 622	Lodge	LR3R (350 hrs)	37S/2925-21-801-8297	.018 to .021	14 MM	11/16 - 24
North Star C5	P&W R2800-CA15	Champion	REB37N (500 hrs)	37S/2925-21-801-8276	.013 to .016	18 MM	5/8 - 24
Packet C119G	Wright R3350-89A	Lodge AC	RS35R (875 hrs) 275F (500 hrs)	37S/2925-21-801-8295 37S/2925-21-804-1563	.023 to .025 .015 to .018	18 MM 18 MM	3/4 - 20 3/4 - 20

Aircraft	Engine	Make	Model	Sec/Ref.	Gap	Base	Lead End
Otter	P&W R1340-SIH1G	Champion	C26S (400 hrs)	37S/2925-21-801-8299	.012 to .015	18 MM	5/8 - 24
Sikorsky H5	P&W R985-AN5	Champion	C26S (120 hrs)	37S/2925-21-801-8299	.012 to .015	18 MM	5/8 - 24
Sikorsky H34A	Wright R1820-84	Champion Champion Champion Champion AC	R103 RHA29N R111 RHB32N 285 (400 hrs) (400 hrs) (400 hrs) (400 hrs) (400 hrs)	37S/2925-21-801-8292 37S/2925-21-801-8293 37S/2925-21-801-8290 37S/2925-21-801-8279 37S/2925-21-801-8287	.020 to .022 .020 to .022 .020 to .022 .020 to .022 .020 to .022	18 MM 18 MM 18 MM 18 MM 18 MM	3/4 - 20 3/4 - 20 3/4 - 20 3/4 - 20 3/4 - 20
Vertol H21A, H21B & H44A	Wright R1820-103	Champion AC	RHB37N 285 (240 hrs) (240 hrs)	37S/2925-21-801-8280 37S/2925-21-801-8287	.020 to .022 .020 to .022	18 MM 18 MM	3/4 - 20 3/4 - 20

