

Before You Begin

- Use disposable rubber gloves when handling Mojave Green propellant
- Do not modify the motor in any way.
- If any parts are missing or damaged, call AeroTech at 435-865-7100.
- Use only AeroTech RMS reload kits to refurbish an RMS motor.
- Do not interchange parts from different reload kits.
- Do not reuse any parts of the RMS reload kit.
- Save the reload kit plastic bag for the used reload kit parts. Dispose of bag and parts properly.

Hardware & Supplies Required

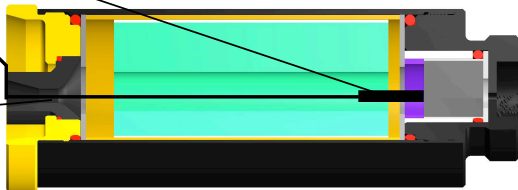
RMS 54mm small nozzle aft closure
RMS 54/426 case
RMS 54mm std. or plugged forward closure
-or-
54mm reload adapter system (also refer to RAS instructions)

Disposable rubber gloves
Synco™ Super Lube™ or other grease
Hobby knife
Wet wipes or damp paper towels

Preparation For Flight

Install Initiator Against Delay Charge

Nozzle Throat



1. Insert the coated end of a FirstFire™, Firestar™ or other initiator through the center nozzle throat until it stops against the delay charge element.
2. Secure the initiator to the nozzle with a piece of masking tape.
3. Install the motor into the rocket's motor mount tube. Ensure that the motor is securely retained in the rocket by using positive mechanical means to prevent it from being ejected during recovery system deployment.
4. Prepare the rocket's recovery system and then launch the rocket in accordance with the Tripoli Rocketry Association (TRA) Safety Code and National Fire Protection Association (NFPA) Code 1127.

Post-Recovery Cleanup

NOTE: Perform motor clean-up as soon as possible after motor firing. Propellant and delay residues become difficult to remove after 24 hours and can lead to corrosion of the metal parts. Place the spent motor components in the reload kit plastic bag and dispose of properly.

1. After the motor has cooled down, remove the forward and aft closures.
2. Remove the delay insulator, delay o-ring and forward delay spacer (neoprene washer) from the forward closure and discard. Remove and discard the nozzle, nozzle o-ring and the forward and aft o-rings. Using wet wipes or damp paper towels, remove all delay and propellant residue from the closures. **WARNING: FAILURE TO COMPLETELY REMOVE DELAY RESIDUE FROM THE INSIDE OF THE FORWARD CLOSURE CAN LEAD TO GAS LEAKAGE ON A SUBSEQUENT FLIGHT AND DAMAGE TO YOUR RMS MOTOR FORWARD CLOSURE AND ROCKET VEHICLE.**
3. Remove the liner from the casing by pushing on either end. Discard the liner and the forward and aft insulators. Using wet wipes or damp paper towels, wipe the inside of the casing to remove all propellant residue.
4. Apply a light coat of grease to all threads and the inside of the motor case. Reassemble metal parts and store motor in a dry place.

AeroTech Division
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P/N 20079-2 Rev. 4/9/10
Made in U.S.A.

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HIGH-POWER RMS™ Reloadable Motor System™ I170G-10A Rocket Motor Reload Kit For RMS-54/426 Motor Hardware Mojave Green™ Composite Propellant

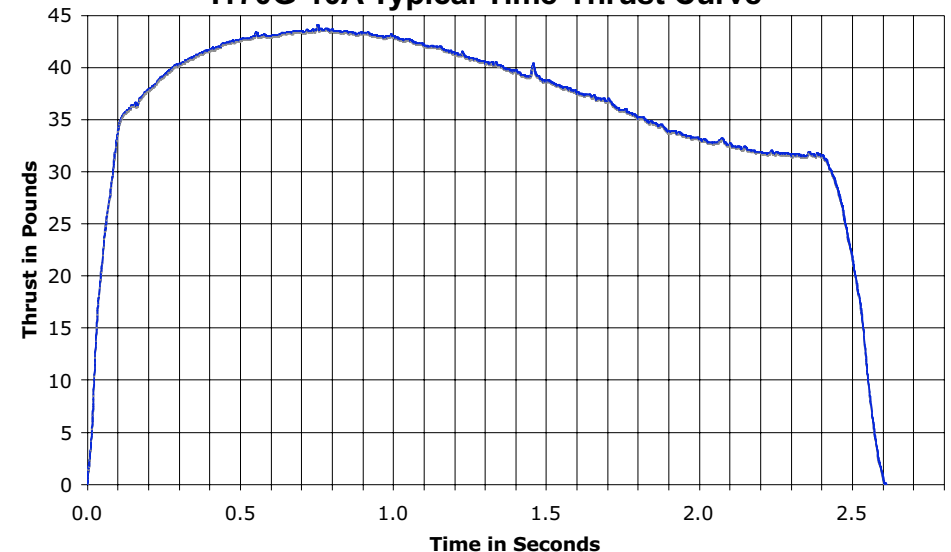
To adjust time delay, use AeroTech Reload Delay Kits (RDks) or drill delay 0.025" per second of adjustment using twist drill. Drilled end faces propellant.

Do not open reload kit until ready to use.

WARNING-FLAMMABLE: Read Instructions Before Use. Use RMS reload kits only in accordance with instructions. Sale to persons under 18 years of age prohibited by federal law. For use only by certified users 18 years of age or older. Ignite by electrical means only. Do not smoke when loading RMS motors or use in the vicinity of open flames. **DANGER-POISON:** Contains Barium Nitrate. Do not ingest propellant or breathe exhaust fumes. Wear disposable rubber gloves when handling propellant. **CAUTION:** Keep out of reach of children. Follow NAR & TRA safety codes at all times. Motor hot after firing.

Certified by the Tripoli Rocketry Association • Made in U.S.A. • www.aerotech-rocketry.com
AeroTech Division, RCS Rocket Motor Components, Inc., 2113 W. 850 N. St., Cedar City, UT 84721

I170G-10A Typical Time-Thrust Curve

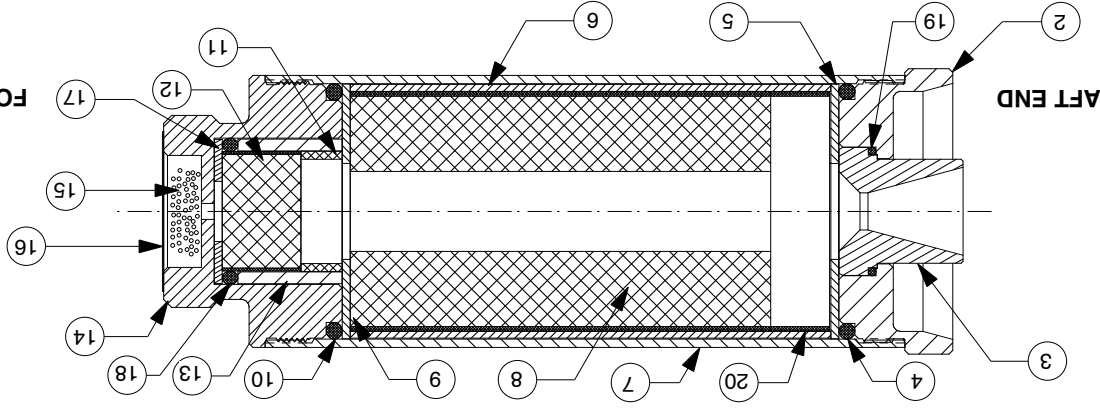


Motor Specifications

Total Impulse:	424 N-sec	Burn Time:	2.6 seconds
Propellant Wt.:	217.8 grams	Peak Thrust:	44 pounds
Loaded Wt.:	530 grams	Delay Time:	10 seconds (adjustable)
Motor Diameter:	54mm	Motor Length:	6.17"

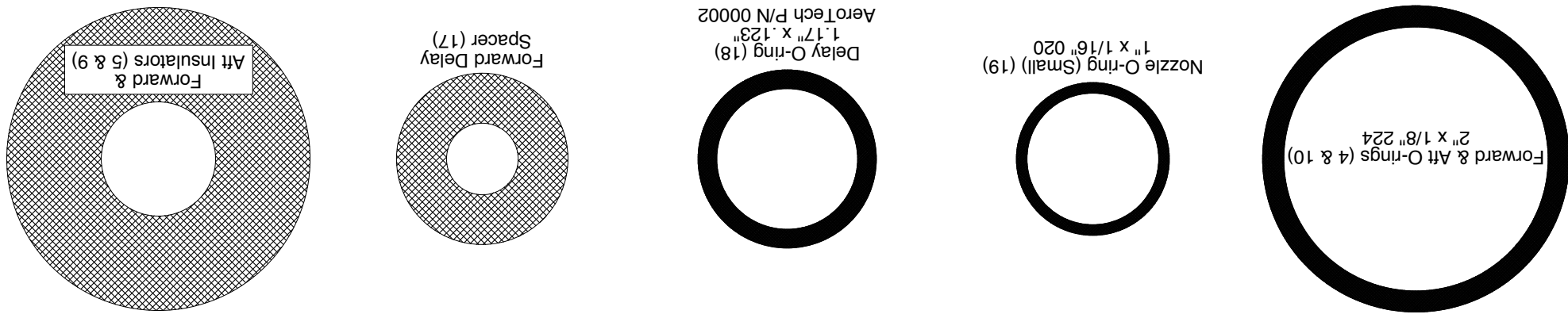
I170G-10A Assembly Drawing and Instructions

ITEM	DESCRIPTION	QTY	PART NUMBER	ITEM	DESCRIPTION	QTY	PART NUMBER
11	AFT DELAY SPACER (.94" O.D. X .322")	1	03958	2	54MM AFT CLOSURE SMALL NOZZLE	1	544CCSN
12	DELAY GRAIN (.933" O.D. X .616")	1	03908	3	NOZZLE (NEW L2) UNDRILLED .291"	1	01550
13	DELAY INSULATOR (1.13" O.D. X .815")	1	03356	4	AFT O-RING (2" O.D. X 1/8") 224	1	00224
14	FORWARD CLOSURE (REGULAR)	1	54FCC	5	AFT INSULATOR (1.99" O.D. X 1/16")	1	05406
15	EJECTION CHARGE (USER SUPPLIED)	1	03700	6	PAPER LINER (1.99" O.D. X 3.755")	1	02070-1
16	EJECTION CHARGE CAP (1-1/4")	1	05604	7	54/426 CASE	1	5442C
17	FWD DELAY SPACER (1-1/8" O.D. X .062")	1	03355	8	PROPELLANT GRAIN (1.870" O.D. X 3.285")	1	03G038
18	DELAY O-RING (1.17" O.D. X .123")	1	00002	9	FORWARD INSULATOR (1.99" O.D. X 1/16")	1	05406
19	NOZZLE O-RING (1" O.D. X 1/16") 020	1	00020	10	FORWARD O-RING (2" O.D. X 1/8") 224	1	00224
20	GRAIN SPACER (1.870" O.D. X .460")	1	03109				



Assembly Instructions (numbers refer to item numbers on drawing):

1. Lightly grease o-rings (4, 10, 18 & 19), case threads (7) and delay cavity of forward closure (14) (but not the forward end of cavity).
2. Assemble delay grain (12), delay spacer (11), delay insulator (13) and delay o-ring (18) as shown.
3. Install forward delay spacer (17) into forward closure (14), then push step 2 delay assembly into forward closure (14), o-ring end first.
4. Insert propellant grain (8) and grain spacer (20) into liner (6), then push liner assembly into case (7) until recessed equally from ends of case.
5. Install forward insulator (9) and forward o-ring (10) into end of case (7) opposite of grain spacer (20).
6. Thread forward closure (14) into the end of the case (7) with the forward insulator (9) and forward o-ring (10) until seated.
7. Install aft insulator (5) and aft o-ring (4) into open end of case (7).
8. Install small nozzle o-ring (19) and nozzle (2) into aft closure (3) and thread aft closure (2) into open end of case (7) until seated.
9. Dispense ejection charge (15) into forward closure (14) and seal end with ejection charge cap (16).



AeroTech P/N 00002