

GLASS HULL

FULL PROOF · JFD-20260926-FP-00001 · Robinhood Chain block production

2026-09-04T00:00:00Z → 2026-09-04T23:59:59Z

Robinhood Chain block production

The Full Proof for Proof Posit PP-005 - free, identical for every reader

838c1e337546a636668b3be1a1ba172b1f9ab77cf01bcd0b8cabc1b01276944

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K. L. Phillips

838c1e337546 · 1/1 · PENDING · <https://gh.jetfyul.com/v/JFD-20260926-FP-00001>

Glass Hull · FP-Template 01-926 · Alan Turing
Matchstick Made © 2026 · Jet Fyul Dynamics LLC

NOTE ON THIS DOCUMENT

The pages above reproduce the sealed document. The sealed record is a file.

What the Notary authorised, what both hardware witnesses signed and what the ledger event records is the file JFD-20260926-FP-00001 . pdf - 4021051 bytes, SHA-256 a151ac8 fe3d32927e4b265814091ba5b623258cb3afd30ecd722235a32033c78.

Appendix R (reproduction discipline), carried verbatim in the exact source, FP-005-appendix-R.md (6452 bytes, SHA-256 1a2a35e6f745f2d1b15f2c79ec7 9f69add81fcfb5a7e958b375578693074875c) is embedded in this PDF as a file attachment.

Appendix S (canonical serialization), carried verbatim in the exact source, FP-005-appendix-S.md (6746 bytes, SHA-256 53f3b12900d819268c678206a6e 6a244298086c43a3b3d0d2985d567badd18f6) is embedded in this PDF as a file attachment.

Its exact source, whose fingerprint the document prints, FP-005-free-full-proof.md (34903 bytes, SHA-256 838c1e337546a636668b3be1a1ba172b1f9ab77cf01bcdf 0b8cabc1b01276944) is embedded in this PDF as a file attachment.

The sealed document JFD-20260926-FP-00001 . pdf (4021051 bytes, SHA-256 a151a c8fe3d32927e4b265814091ba5b623258cb3afd30ecd722235a32033c78) is embedded in this PDF as a file attachment.

The anchor proof as stamped at sealing JFD-20260926-FP-00001 . pdf . ots (891 bytes, SHA-256 b7b16d92ebdc38460c4cb74de13e1f1375d2ef016a766b26f1da3097 dcb45e91) is embedded in this PDF as a file attachment.

The seal record from which the certificate is built seal-record-JFD-20260926-FP-00001 . json (6774 bytes, SHA-256 f34f2e967 76a82e3778330ea9244ba785d8838f138def6991c3b41caace292ed) is embedded in this PDF as a file attachment.

The complete anchor proof, carrying the Bitcoin attestation, JFD-20260926-FP-00001 . pdf . anchored . ots (5073 bytes, SHA-256 c715cc4ab 2b278431daeba374f2e69056daadfc78055cfdce955ec3383f84832) is embedded in this PDF as a file attachment.

The anchor confirmation from which the certificate's Bitcoin block is taken anchor-confirmation-JFD-20260926-FP-00001 . json (2789 bytes, SHA-256 c 50116321ba62587d216cba2a39b2fcee610f41350cd1f48900869312445dd98) is embedded in this PDF as a file attachment.

Open the attachments pane of your PDF reader to extract them, and hash each file as stored.

What follows, in order

The seal page, carrying the seal record's values: fingerprint, ledger event, both witnesses and the anchor. After it, the certificate, built from the same seal record.

K. L. Phillips

K. L. Phillips, a man

Principal, Jet Fyul Dynamics LLC · The author stands behind every word.



BLOCK 2 — ISSUER

ISSUER Jet Fyul Dynamics LLC · Wyoming
RAIL Matchstick Tribunal
CUSTODY both witness keys held by the issuer, in silicon, on separate hosts; never exported

BLOCK 4 — WHO SIGNED IT

Two independent hardware witnesses. Conforming tests of a defined procedure — not a primary and a backup.

	WITNESS 1	WITNESS 2
chip identity	a9-atecc608b-slot0	a10-atecc608b-slot0
serial	0123ADA0711D8597EE	0123DC797ACC1195EE
curve	ECDSA-P256 (secp256r1)	ECDSA-P256 (secp256r1)
public key	d62d03f8dc3813fb5b74f2b64339d185...	853e69fc700990303abfe61358bfa456...
signature over artifact hash	→ ledger event 3173062	→ ledger event 3173062
signed (UTC)	→ event 3173062	→ event 3173062
federation peer	a10-atecc608b-slot0	a9-atecc608b-slot0
host · custody	A9 · Jet Fyul Dynamics LLC	A10 · Jet Fyul Dynamics LLC
certifies in accordance with	Fed. R. Evid. 902(13), 902(14)	Fed. R. Evid. 902(13), 902(14)
verified offline	→ event 3173062	→ event 3173062

Each signature verifies on its own, against its own public key, without the other and without anything of ours.
One signature is not a seal: if either witness is unreachable, no seal is produced. Both chips are the same make and model, provisioned and owned by the issuer — independent in custody and location, not in supply chain or ownership.
Full public keys, signatures, and the Rule 902(11) certification of a qualified person: ledger event → event 3173062 · <https://gh.jetfyul.com/v/JFD-20260926-FP-00001>

Blocks 1-3 are inside these bytes; Block 4 live cells, Block 5 (Ed25519 a1-ledger) and Block 6 (Bitcoin anchor) live on the ledger and at <https://gh.jetfyul.com/v/JFD-20260926-FP-00001>

CERTIFICATE OF AUTHENTICITY

Robinhood Chain block production - JFD-20260926-FP-00001

The record

Document control number: JFD-20260926-FP-00001

Fingerprint (SHA-256 of the sealed file, raw bytes as stored): a151ac8fe3d32927e4b265814091ba5b623258cb3afd30ecd722235a32033c78

Sealed file: JFD-20260926-FP-00001.pdf, 4021051 bytes

Source fingerprint printed inside the document: 838c1e337546a636668b3be1a1ba172b1f9ab77cf01bcdcf0b8cabcb1b01276944

Ledger event (kind-15): 3173062, event hash 4e7dc5ea08083f9136b49f672eb9d232b8cfa03344a4480b344f760a1a2f120e

Notary authorisation (kind-3): 3173060

Seal request signed by both witnesses: SHA-256 ceb683da32c98c09ea00e32f857dca8051b7a3f1036a7ddcc5632fbc63c39eb

Anchor: OpenTimestamps, **ATTESTED in Bitcoin block 968728** - block hash 0000000000000000000018f3b21e9d9a1a973e16c5f65482448355f4874c9a40f, block time 2026-09-26T18:34:59Z.

Calendars that attested: <https://bob.btc.calendar.opentimestamps.org> (block 968733); <https://finney.calendar.eternitywall.com> (block 968752); <https://btc.calendar.catallaxy.com> (block 968739); <https://alice.btc.calendar.opentimestamps.org> (block 968728). The earliest attested block is the anchor.

Anchor check: the committed value equals block 968728's merkle root 5bc92471a889a9b b4b6c0ff10585a94bd8e733daa9d3bfb3a1a2816eea50b906, and mempool.space and blockstream.info agree on that merkle root and on the block hash (checked 2026-09-27T22:14:05Z).

Proofs: the proof as stamped at sealing, JFD-20260926-FP-00001.pdf.ots and the complete proof JFD-20260926-FP-00001.pdf.anchored.ots, which carries the Bitcoin attestation itself.

Verification address: <https://gh.jetfyul.com/v/JFD-20260926-FP-00001>

The two hardware witnesses

Witness 1 - host A9, a9-atecc608b-slot0, serial 0123ADA0711D8597EE, curve ECDSA-P256 (secp256r1), signed 2026-09-26T18:20:39.056925+00:00

Public key: d62d03f8dc3813fb5b74f2b64339d185742aabcae1bdcfd2f7a7ad59f1dd3c5d50e57effa4a3c888f58c3eca9d274bd7f0b8d263fa38bbf0bc6fbff6035c2411

Signature: dbe7d0dc3c7d634eca5aa8a80e3f9777532545cfbfb6648d153eba9e95c295649632a728ace825173007aa124f7d4ab17cfb0efe7fad7958c0a9c09dfb1cc60b

Witness 2 - host A10, a10-atecc608b-slot0, serial 0123DC797ACC1195EE, curve ECDSA-P256 (secp256r1), signed 2026-09-26T18:20:41.263732+00:00

Public key: 853e69fc700990303abfe61358bfa456160eaae1529dbc74805d1639cfc88e78497bbe060e7ae5d54466b2ce0a2753e14204a21eed4a132a61ace3294f9beba1

Signature: 1d1f8ab61089a97f0e632163568bfe241f5b880bde93aaba7026e090e158ffbb0bc5653c1030799f80f41ee8c7a1c0cc23ab2940327399b8fbc9e1c8cb834b8

How to verify this without the Issuer, in six steps

- (1) Extract JFD-20260926-FP-00001.pdf from this PDF's attachments and hash it as stored, with no normalisation. Its SHA-256 must equal the fingerprint above.
- (2) Read ledger event 3173062 by its id. Its payload must carry that fingerprint as doc_sha256 and JFD-20260926-FP-00001 as dcn.
- (3) Verify witness 1's signature as ECDSA over P-256, with the public key above, over the seal request bytes whose SHA-256 is ceb683da32c98c09ea00e32f857dcaa8051b7a3f1036a7ddcc5632fbc63c39eb.
- (4) Verify witness 2's signature the same way. Each signature must verify under its own key and fail under the other's.
- (5) Read the OpenTimestamps proof against the same fingerprint. It must carry a Bitcoin block-header attestation at block 968728; ask any block explorer for that block and compare its merkle root with the value the proof commits to.
- (6) Open <https://gh.jetfyul.com/v/JFD-20260926-FP-00001> and confirm it shows the same fingerprint, ledger event, witnesses and anchor.

This certificate supersedes an earlier one

This certificate supersedes certificate **JFD-20260926-CERT-00004** (ledger event 3173070, SHA-256 7c43d21919abcf4651aca0ffe54fd183a0b43970cd9304c7964d8c18b61c098b). That certificate was rendered and sealed before the document's anchor confirmed, so it could not state the Bitcoin block. Nothing about the certified document changed: the same file, the same fingerprint, the same sealing event and the same two witness signatures. The earlier certificate remains a valid seal of its own bytes; it is no longer the certificate of record.

This certificate goes to what the record is and that it has not been altered. It is not a sworn declaration and does not assert the truth of anything the document says.