Karelia Group

Karelia Premium H20 beam

FOREST INDUSTRY

REPUBLIC OF KARELIA







Karelia Group

Karelia Group Ltd. is a leading Russian manufacturer and Russia's largest exporter of H20 timber formwork beams.

Our production facilities are located in Kondopoga and Petrozavodsk, in the Republic of Karelia, Russia. Karelia is a forest-rich region known for high-quality timber. The harsh northern climate gives the timber its distinctive properties.

We began operations in 2013 with the production of sawn timber for export to Europe and the Middle East.

We later expanded our product range and began producing planed timber products.

Today, our main product is the Karelia Premium H20 timber formwork beam.

Our production includes two plants with seven manufacturing units, each equipped with modern machinery from leading manufacturers. Quality control is performed at every stage of production. This enables us to manufacture premium-grade H20 timber formwork beams for demanding construction markets.

We supply customers in Russia, Poland, Serbia, Turkey, the UAE, Saudi Arabia, Bahrain and Kuwait, and have been present in the UAE and GCC region for three years.

We manufacture premium-quality products with strong technical performance and a high-quality finished appearance. Our products comply with EN 13377:2002.

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Our production model is built around premium quality rather than cost minimisation. We use selected materials that meet EN 13377:2002 requirements, supported by modern equipment and strict full-process control. The load-bearing flanges are made from selected North Karelian spruce.

We control the full production process for this timber, including log sawing, drying, calibration, planing, gluing, and finishing treatment. This quality-focused production chain allows us to deliver a consistently premium finished product. This production approach is more expensive than standard H20 beam manufacturing, but it allows us to deliver higher durability, a better finished appearance and reliable performance during repeated use. Our facility includes an in-house quality laboratory with a unique test stand for beam strength testing.







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Northern Forest

Karelia Premium H20 beam is engineered to exceed standard European H20 timber formwork beams in key quality parameters. We use North Karelian spruce.

This timber is significantly stronger than the spruce commonly used in European H20 timber formwork beams. The logs we use for sawing do not exceed 16 cm in diameter. This timber comes from the upper part of the spruce tree, where knots are small and sound. Small, sound knots do not create the same splitting risk in the flange.

Large knots in the flange are a weak point under load. Using small-diameter logs helps us avoid large knots.

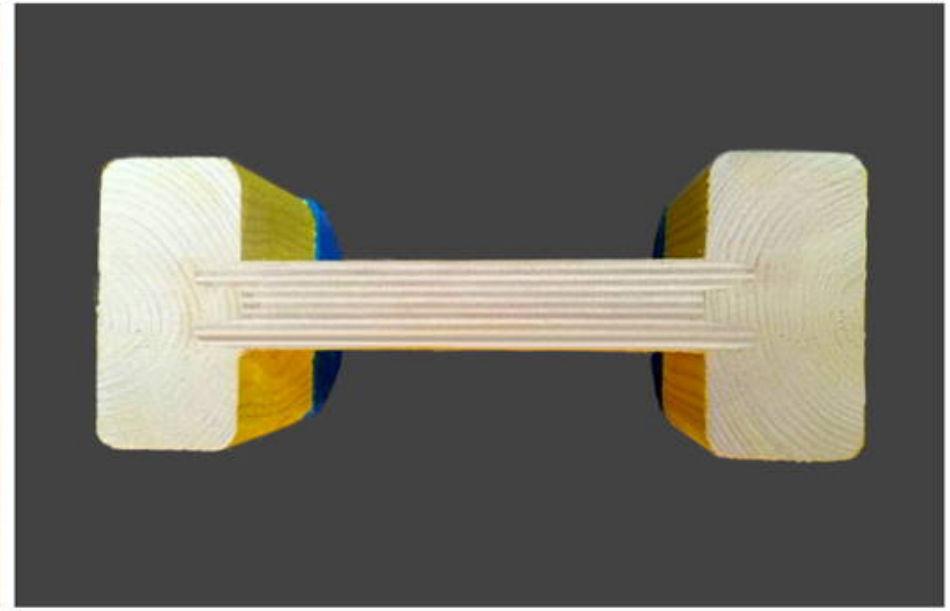




BIRCH PLYWOOD

For the web of Karelia Premium H20 beams, we use moisture-resistant birch plywood manufactured in Russia. The plywood consists of 17 layers of birch veneer. Russian birch plywood is known worldwide as a benchmark for quality, strength, and wear resistance. Many European manufacturers use 3-ply solid wood panels made from spruce or wood-based panels made from pressed wood particles. Therefore, Karelia Premium H20 delivers higher reliability than standard European alternatives. In our beams, the plywood web and flanges are bonded with polyurethane adhesive, giving Karelia Premium H20 an advantage over products bonded with D4-grade adhesive. Karelia Premium H20 is designed to outperform standard European H20 beams in key structural and durability characteristics.





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PLASTIC END CAPS

Karelia Group has developed and implemented unique plastic end caps for H20 beams. The impact-resistant end caps have a complex, multi-faceted shape. This provides effective protection against impact damage on construction sites. The most common type of damage during beam operation is longitudinal cracks from the end of the beam. We have found a solution to this problem.

Both ends of each Karelia Premium H20 beam are protected with flexible impact-resistant plastic end caps weighing 80 g each. These end caps cover the beam ends from all sides. This significantly increases the durability of the beam and the number of reuse cycles during construction. Karelia Premium H20 features the strongest end-cap protection system in the global H20 beam market, second only to the original Doka design.





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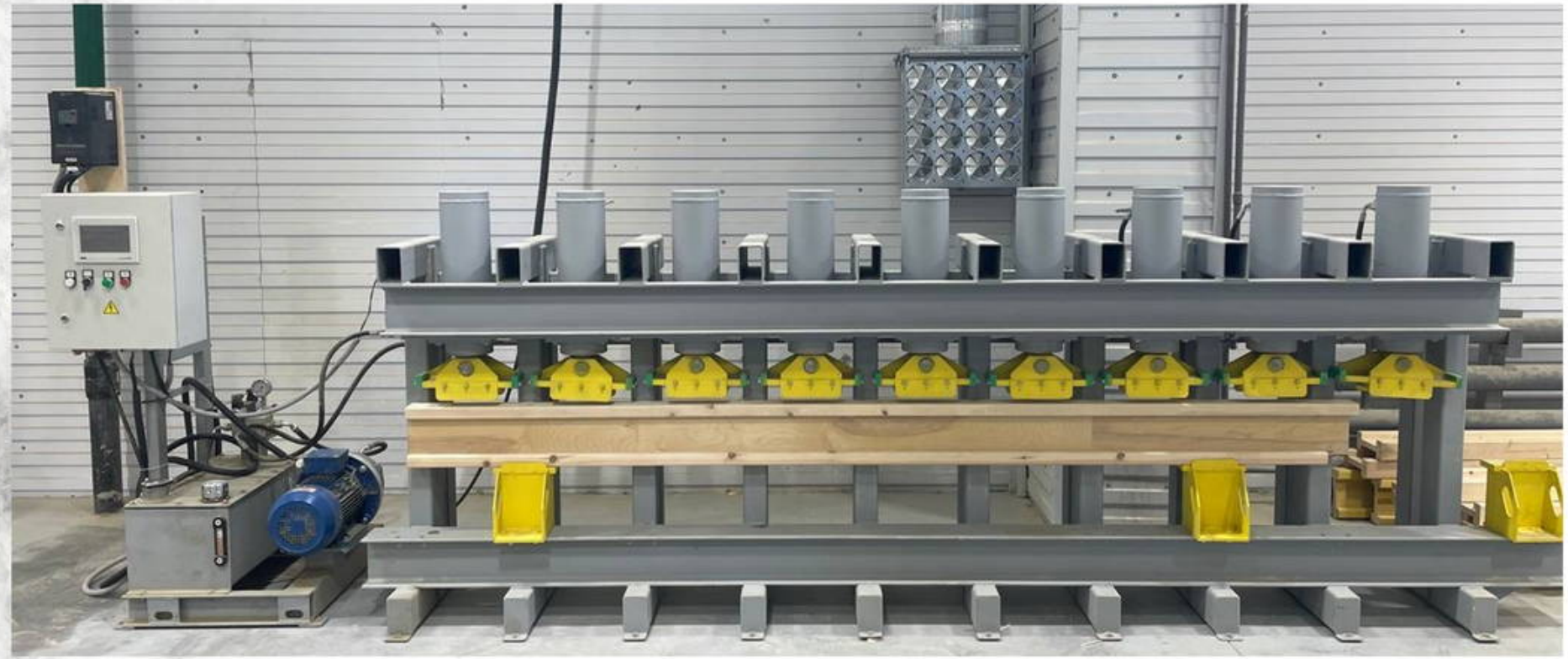
QUALITY CONTROL

Quality control is performed at every stage of production. In addition, in accordance with EN 13377:2002, we regularly perform strength tests on finished products. For this purpose, we have installed a dedicated test bench with no comparable equivalent in Russia.

On this stand, we destructively test every 10,000th beam produced by the factory to monitor and confirm declared performance characteristics. Customers can rely on consistent premium quality, verified through regular destructive testing and reflected in both technical performance and finished appearance.





STRENGTH AND RELIABILITY

The most important characteristic of H20 timber formwork beams is their strength. Karelia Premium H20 exceeds the values specified in EN 13377:2002. Another significant indicator is the number of times the beam can be reused on site. Karelia Premium H20 is designed for at least 50 reuse cycles.

Comparison with EN 13377:2002 values:

	EN 13377:2002	Karelia Premium H20
Shear force Vk	23.9 kN	27.74 kN
Bearing resistance Rb,k	47.8 kN	52.05 kN
Bending moment Mk	10.9 kNm	11.29 kNm



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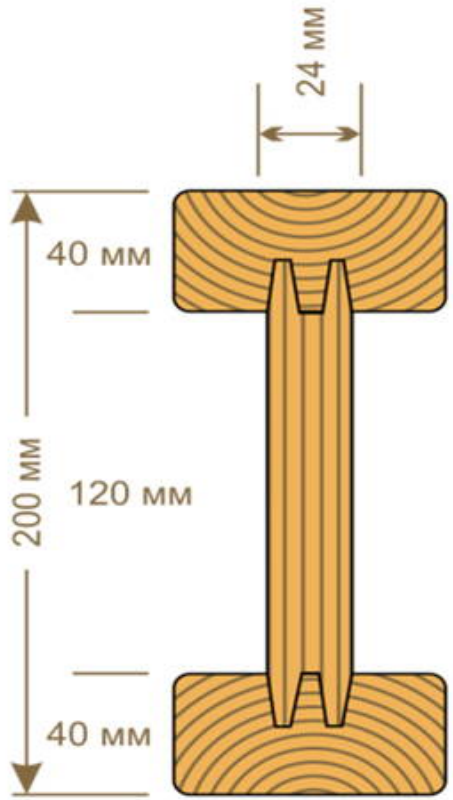
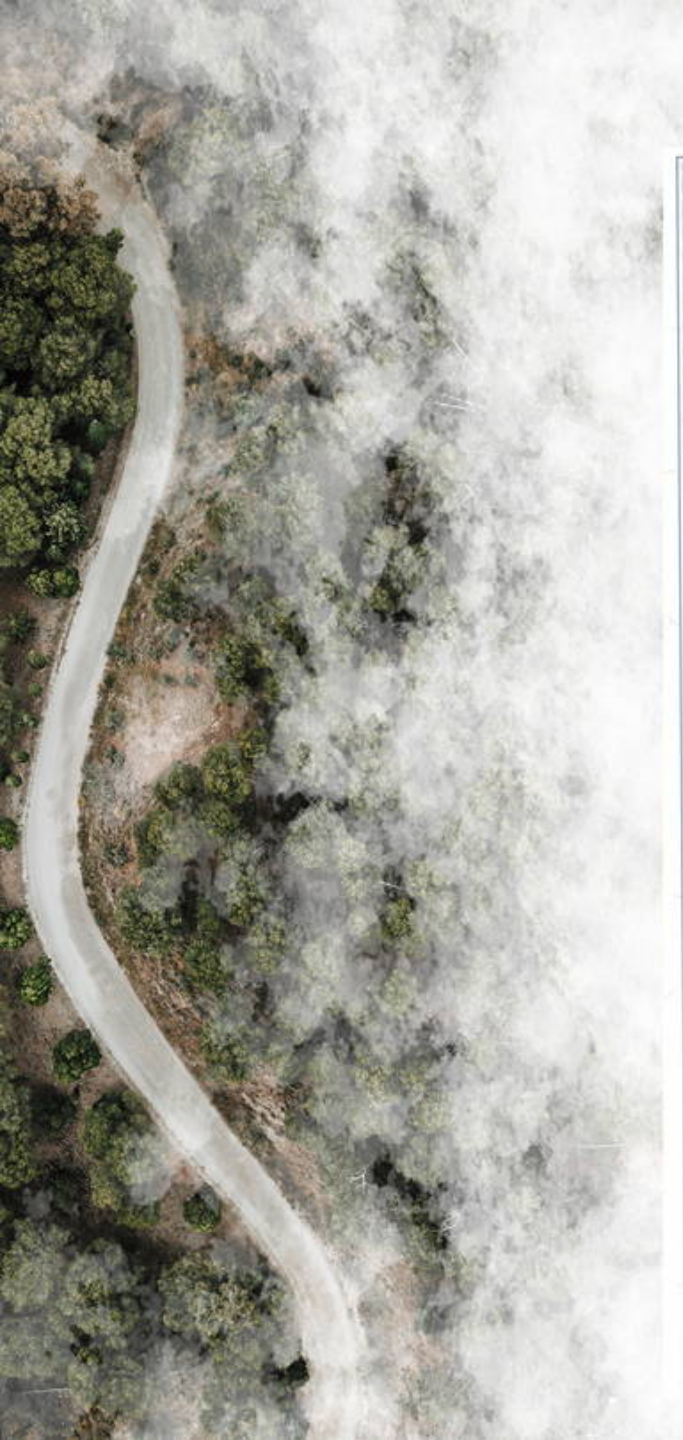
Main Specifications

- Specification of H20 Timber Formwork Beams:
- European Standard: EN 13377:2002
- Flange material: North Karelian spruce
- Web material: birch plywood (Russia)
- Length Range: 1500–6000 mm
- Standard Lengths: 2450/2650/2900/3300/3600/3900/4500/4900/5900 mm
- Height: 200 mm
- Flange width: 80 mm
- Flange thickness: 40 mm
- Web thickness: 24 mm
- Web width: 120 mm
- Web embedment depth: 13 mm
- Bending moment capacity Mk: ≥ 11.29 kNm
- Ultimate bearing resistance: 52.05 kN
- Shear force: 27.74 kN
- Weight per Linear Meter: 5.2 kg/m





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RUSSIAN FEDERATION

№ 0283399

VOLUNTARY CERTIFICATION SYSTEM
«PROMTECHSTANDART»
№ РОСС RU.32001.04ИБФ1 in the unified register of registered voluntary certification systems
FEDERAL AGENCY FOR TECHNICAL REGULATION AND METROLOGY

ISO 9001

EXPERT COMPLIANCE CERTIFICATE

Registration number РОСС RU.32001.04ИБФ1.ОС44.177222Э

Valid from 03.06.2025 to 02.06.2028

CERTIFICATION BODY
№ РОСС RU.32001.04ИБФ1.ОС44
Limited Liability Company "Techproekt"
Address: Russia, 123112, Moscow, vn.ter.g. municipal district Presnensky, Presnenskaya embankment, 10 building 2, room. 5n,
INN: 9703195751, OGRN: 1247700739120, e-mail: tehproekt.cert@yandex.ru

THIS CERTIFICATE CONFIRMS THAT

Malevanny Alexey Alexeevich

meets the voluntary certification system "PromTechStandart" requirements

for internal audit experts of quality management system

to expert auditors of internal audits of the quality management system for compliance with the requirements of the standard:

GOST R ISO 9001-2015 (ISO 9001:2015)
- Quality Management System.

Issued based on the expert commission decision,
report № РОСС RU.32001.04ИБФ1.ОС44.00000ПЭ of 13.05.2025

and registered in the roster of experts of the voluntary certification system "PromTechStandart"

Head of the body — E.F. Kolomiets (signature / initials, surname)

Expert — V.V. Baranov (signature / initials, surname)

This certificate of conformity obliges the organization to maintain the state of work performed in accordance with the above standard. The state of work is under control of the certification body of the voluntary certification system "PromTechStandart" and must to be confirmed during the annual supervision

RUSSIAN FEDERATION

№ 0283397

VOLUNTARY CERTIFICATION SYSTEM
«PROMTECHSTANDART»
№ РОСС RU.32001.04ИБФ1 in the unified register of registered voluntary certification systems
FEDERAL AGENCY FOR TECHNICAL REGULATION AND METROLOGY

ISO 9001

CERTIFICATE OF CONFORMITY

Registration number РОСС RU.32001.04ИБФ1.ОС44.77833

Valid from 03.06.2025 to 02.06.2028

CERTIFICATION BODY
№ РОСС RU.32001.04ИБФ1.ОС44
Limited Liability Company "Techproekt"
Address: Russia, 123112, Moscow, vn.ter.g. municipal district Presnensky, Presnenskaya embankment, 10 building 2, room. 5n,
INN: 9703195751, OGRN: 1247700739120, e-mail: tehproekt.cert@yandex.ru

ISSUED
Limited Liability Company "KARELIA GROUP"
TIN: 1000018909 PSRN: 1241000005553
Address: Russia, 186220, Republic of Karelia, Kondopoga district, Kondopozhskoye township, Kondopoga, Petrozavodskoye highway, building. 5

THIS CERTIFICATE CONFIRMS THAT
QUALITY MANAGEMENT SYSTEM

production of wooden I-beams from high-strength wood, formwork of walls and floors for monolithic construction

MEETS THE REQUIREMENTS OF STANDARD

GOST R ISO 9001-2015 (ISO 9001:2015)
- Quality Management System.

Issued based on the expert commission decision,
report РОСС RU.32001.04ИБФ1.ОС44.77833П of 03.06.2025

Certificate of conformity verification

Head of the body — E.F. Kolomiets (signature / initials, surname)

Expert — V.V. Baranov (signature / initials, surname)

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MATERIALS OF H20 TIMBER FORMWORK BEAMS

Birch plywood web, 24 mm thick, complies with EN 636:2015-05

Flange timber made from North Karelian spruce complies with EN 14080:2013-09

KLEIBERIT polyurethane adhesive complies with EN 301:2018-01

REMMERS impregnation coating complies with EN 927-1:2013

The end caps are made of flexible plastic.

We can supply Karelia Premium H20 beams on the following terms:

Payment terms: 100% advance payment.

Production time: up to 3 weeks from receipt of payment.

Delivery terms: CIF destination port, Incoterms® 2020.

Logistics to the required destination can be calculated upon request.

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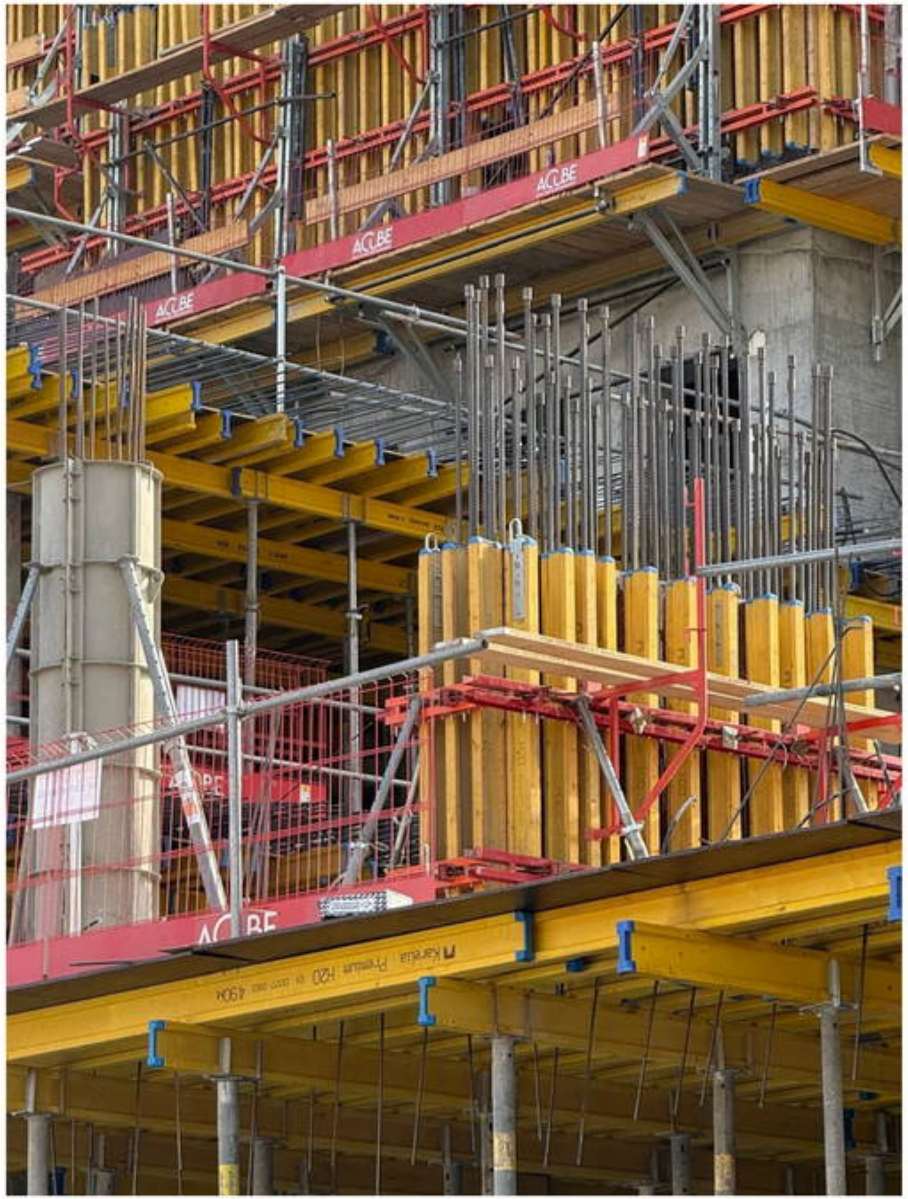
UAE & GCC PARTNERS

Karelia Premium H20 beams are represented in the construction market of the UAE and GCC region through a trusted partner network.

Together with building-material distributors, contractors and formwork specialists, we support projects that require reliable H20 beams, consistent quality and fast site readiness.

The photo shows Karelia beams in use on a construction site in Dubai.





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OUR PARTNERS

UAE AND GCC COUNTRIES

A trusted network for distribution, contracting and formwork supply.

DANUBE GROUP

الراشد ALRASHED لمواد البناء Building Materials

TURIIM ahead of critical path

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