

# JSC Zvezda M503

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The JSC Zvezda M503 was a maritime 6 row, 42 cylinder diesel radial engine built in the 1970s by the Soviet Union. Its primary use was in Soviet missile boats (<http://de.wikipedia.org/wiki/Osa-Klasse>) , which used 3 of these engines. This engine may have had other applications, but due to its extreme weight (12,000+ lb), it would have been limited to ground or naval applications. At least one of these engines has been used in a tractor pull which can be seen in the external links below.

## Specifications (Zvezda M503A)

### General characteristics

- **Type:** 42-cylinder Liquid cooled 6 row, 7 cylinder per row diesel radial engine
- **Bore:** 6.29 in (160 mm)
- **Stroke:** 6.69 in (170 mm)
- **Displacement:** 8,763 in<sup>3</sup> (143.6 L)
- **Length:** 145.66 in (3,700 mm)
- **Diameter:** 61.41 in (1,560 mm)
- **Dry weight:** 12,015 lb (5,450 kg) (dry)

### Components

- **Valvetrain:** 7 overhead cam shafts, one per bank.
- **Fuel type:** Diesel fuel
- **Cooling system:** Liquid-cooled

### Performance

- **Power output:** 3,942 hp (2,940 kW, 3,997 PS) at 2,200 rpm
- **Specific power:** 0.44 hp/in<sup>3</sup> (20.47 kW/L)



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- **Power-to-weight ratio:** 0.32 hp/lb (0.53 kW/kg)

## External links

Youtube tractor pull (<http://www.youtube.com/watch?v=s3iyOvLXxF0>) Note: the specifications about this engine in the video are incorrect. They mistakenly used the 110 cylinder Zvezda specifications.

## References

Translated from : German Wikipedia ([http://de.wikipedia.org/wiki/JSC\\_Zvezda\\_M503](http://de.wikipedia.org/wiki/JSC_Zvezda_M503))

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Categories: Radial engines

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