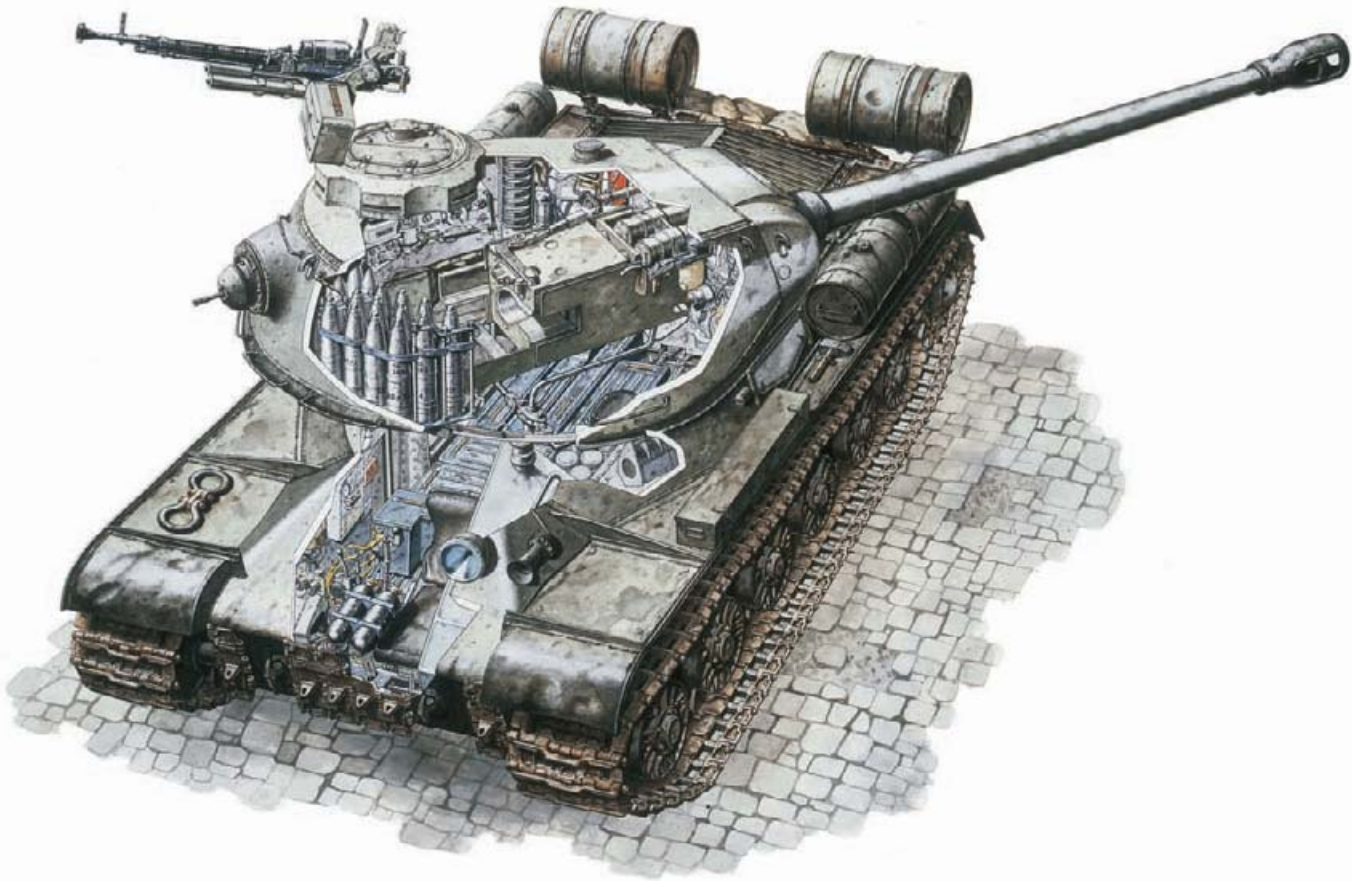


New Vanguard

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IS-2 Heavy Tank 1944–73



Steven J Zaloga • Illustrated by Peter Sarson

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Editor's Note

Readers may wish to study this title in conjunction with the following Osprey titles:

New Vanguard 1	<i>Kingtiger</i>
New Vanguard 5	<i>Tiger I</i>
Campaign 16	<i>Kursk 1943</i>
Men-at-Arms 216	<i>The Red Army of the Great Patriotic War</i>
Men-at-Arms 117	<i>The Polish Army 1939-45</i>
Men-at-Arms 127	<i>The Israeli Army in the Middle East Wars</i>
Men-at-Arms 128	<i>Arab Armies of the Middle East Wars 1948-73</i>

Author's Note

The Stalin series is properly designated 'IS' in English, based on the proper transliteration of Iosef Stalin. They have been known for many years as the JS heavy tanks, in part due to the English spelling of Joseph, but due also due to Anglo-American reliance on wartime German intelligence reports about these tanks which used the proper German transliteration of Stalin's name, Josef.

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DEVELOPMENTAL HISTORY

The Iosef Stalin tanks were the ultimate heavy tanks developed by the Soviet Union. The IS-2 Stalin tank was popularly called the 'Victory tank' in Russia due to its close association with the defeat of Germany in 1945. The sleek and elegant lines of the IS-3 Stalin tank of 1945 heavily influenced post-war tank design, not only in the Soviet Union, but in Europe and America as well. During the Cold War years of the 1950s, no tank was so dreaded by NATO as the T-10 tank, the final evolution of the Stalin series. Yet in spite of their reputation in the West, the Stalin tanks emerged from a troubled design, had a brief moment of glory in 1944 and 1945, and disappeared in ignominy after 1960. It has only been possible in recent years to tell their true story.

The KV series

The Iosef Stalin IS heavy tanks evolved from the earlier KV series. By the autumn of 1942, the KV-1 heavy tanks were widely regarded in the Red Army and the Soviet government as a failed design. During assessments of the disastrous combat failures in the Kharkov battles and the Crimean campaign in the summer of 1942, the KV tank was roundly criticised for its technical and tactical shortcomings. At 47 tons, the KV was substantially heavier than the 28-ton T-34 medium tank. In combat the tank brigades often temporarily lost their KV tanks when they encountered bridges that could not withstand their weight. In addition the KV-1's slow speed and unreliable performance compared badly with the excellent combat characteristics of the T-34 medium tank. In contrast to German heavy tanks, which were invariably more heavily armed than their medium tanks, the KV-1 was equipped with



The KV-13 was an attempt by SKB-2 to develop a 'universal tank' that would replace both the T-34 medium tank and the KV heavy tank. It was shorter in length than the normal KV-1. The KV-13 was a failure, but the hull configuration was used on the IS-1 Stalin heavy tank.

the same 76mm gun as the T-34. The KV-1's sole advantage was its heavier armour, which did not compensate for its shortcomings.

At a meeting of the State Defence Committee (GKO) in the autumn of 1942, several military leaders urged that KV production be halted and that their production facilities be shifted to the T-34 tank. Representatives of the tank industry argued that this would disrupt production. As a compromise, it was agreed to shift all KV tanks out of the normal tank brigades, and concentrate them in independent heavy tank regiments. Production of the 'Tankograd' plant in Chelyabinsk which manufactured the KV was partially shifted to T-34 production. In addition, the tank industry was instructed by Stalin that the technical shortcomings of the KV be solved or that the parties involved would suffer the consequences.

Development of the KV heavy tanks was undertaken by SKB-2 (Special Design Bureau-2), headed by Gen. Zh. Kotin at the massive Tankograd plant in Chelyabinsk¹. During the summer of 1942, Kotin's team had concentrated its attention

¹This plant was officially called the Kirov Plant No. 100, but became known as Tankograd (Tank City) due to its huge size.



The final production variant of the KV series was the KV-85. This was a stop-gap improvisation, mating the new turret from the IS-85 tank with a modified KV-1S chassis. The new IS-85 turret had a wider turret ring than the KV-1S, so a fillet had to be added to the hull sides to provide the added space.

on the KV-13 'universal tank'. The KV-13 was an attempt to reduce the weight of the KV down to the 30 ton range while retaining armour thick enough to stop the German 88mm gun. It was Kotin's hope that the KV-13 would prove so successful that it would replace both the T-34 and the KV tank in production, hence the term 'universal tank'. Considerable pressure was placed on Kotin, since orders had already been received from Moscow to begin shifting a portion of Tankograd's production to the rival T-34 medium tank. There was a real fear that KV production would be totally halted, and the design bureau

closed. During trials in the late summer of 1942, it became evident that the KV-13 suffered from the traditional 'Achilles heel' of the KV family, an unreliable transmission. As a result, the project was cancelled. Kotin was devastated by the failure, and colleagues recall that for days he sat and stared blankly into space.

The KV programme was retrieved by a second modernisation programme headed by the assistant head of the bureau, Nikolai Dukhov. The poor transmission was the most significant technical weakness of the KV design. Dukhov mated an improved transmission designed in 1941 for the ill-fated KV-3 design by Nikolai Shashmurin, along with a lightened hull and modified turret. This vehicle, the KV-1S (*S-skorotsknoi*, fast), reduced the armoured protection of the KV-1 in favour of increased reliability and speed. It was accepted for production in August 1942 to replace the failed KV-1.

The KV-1S proved to be a short-lived stop-gap. In January 1943, the Red Army captured an example of the new Tiger I heavy tank in the Leningrad area. The Tiger I had superior armour



The IS-85 entered production at the end of 1943. It was a very short-lived type as it was decided to re-arm the tank with a 122mm gun. This shows the

classic IS-85 features: the KV-13 hull front, the narrow mantlet and the 85mm gun. This tank was later redesignated IS-1.