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Turbolader

Another important and on the Driving dynamics critical component is the Turbocharger. The original K24 7000 Loader as in the Audi 20V, S4, S2, Urquattro and 10V Turbo (MC2) was installed, ranging up to a capacity of about 280HP. More should be this small loader demand from any case, since the Supercharger speed at this power already so is extremely high that the risk of Turbocharger damage is. It now come some turbocharger in question, in the Audi 100 Audi 200 respectively can be driven.

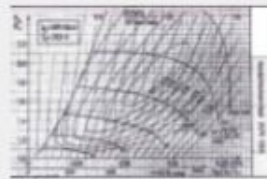


Vergleichstabelle

Fahrzeug	KKK Nummer	Mkb.	Dimensions				Kühlung	
			Compressor	Inlet	Exhaust	Turbine	Oil	Water
Audi 100 / 200 / Urquattro	K26 53 26 988 6413	MC1 / KG	66mm	42mm	6er	50mm	X	
Audi 100 / 200	K26 53 26 988 6411	MC1	66mm	42mm	6er	56mm	X	X
Audi 100 / 200	K24 5324 988 7000	MC2 / 3B	61mm	43mm	6er	46mm	X	X
Audi RS2	K24 5324 988 7200	ADU	66mm	47mm	6er	54mm	X	X

Porsche 944 250PS	K26 5326 988 7042	-	66mm	47mm	8er	56mm	X	X
Porsche 944 220PS	K26 5326 988 6710	-	66mm	44mm	6er	50mm	X	X
MTM 303 PS	K26 5326 988 7000	3B	66mm	47mm	6er	50mm	X	X

K24 70 (MC2 / 3B) ~ 280 PS



This little charger is ideal for city traffic and short Acceleration stages. Since the loader already at about 2200U / min and then responds in the medium speed range can deliver up 1.4bar Übedruck, the charger is very good for Suitable drivers who want to have torque at an early stage. However, the pressure should be, the higher the engine speed, to 0.9 - 1.0bar be lowered because the loader übedreht otherwise. thats why the MC / 20V to a maximum power of 280 hp reach. More should not this small loader expect! If you want more power, must convert!



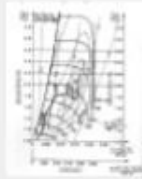
K26 64 (MC1 / KG) ~ 300 PS

From this turbocharger, there were two different versions and in an alleged purchase should be taken to ensure that one with 6.95 housing buys the good quality and not with 6.91. On Another distinguishing feature is that the better loaders is provided a blue shield, this also oil and Water cooled is. The old Turbo with red signboard only oil-cooled. On particularly good Turbo is not just the old K26. Thus, it is also not surprising that Audi then the 10V update, the MC2, the smaller K24 built. So you should only in the K2664 obstruct an extreme case, since the response and Power output is more than bad.



K26 67 (Porsche 944 220 PS) ~ 340 PS

The K26 from the Porsche 944 with 220 PS has a 2mm larger compressor inlet than the K2664. This difference manifests itself already in Verdichterdiagramm. Almost 2 bar Übedruck are possible with this charger and the Power output is approximately 320-340 hp bar at about 1 Übedruck. However, this charger is relatively difficult to designed as the market at 944er Porsche parts not much to has to offer. In addition, the oil and water lines must be modified or redesigned.



K26 70 (Porsche 944 250 PS) ~ 400 PS

This charger has a compressor inlet of almost 47mm at a Compressor size of 66mm. How the compressor Chart can be found, the map of the RS2 loader is very similar. Again, with a capacity of about 350 to about 400 hp be expected. The large 8-exhaust side and the great Exhaust gas turbine is the response of course is relatively poor, which Range however is very high



K24 72 (ADU RS2) ~ 370 PS

Der RS2 Lader ist der perfekte Turbolader für einen Leistungsbereich von ca. 300 - 370PS. Er verbindet schnelles Ansprechverhalten mit hoher Leistungsausbeute. Bei so einem Umbau sollte dieser Lader Wahl Nummer 1 sein. Zu beachten ist aber, dass der Markt zwar viele RS2 Lader anbietet, aber es darunter auch viel Schrott zu kaufen gibt. Wer also unbedingt 500 Euro für einen fast schrottreifen RS2 Turbolader ausgeben will, ist bei eBay meistens genau richtig. Natürlich kann man auch mal einen guten Kauf machen, dies ist aber eher die Ausnahme. Leider ist dieser Turbolader sehr anfällig auf Hitzerrisse im Abgasgehäuse, daher ist bei gebrauchten Ladern eine genaue Untersuchung notwendig.





K26 70 (MTM 303PS) ~ 330 PS

In this set of MTM mixing loader is an ideal turbocharger for power ratings from 300hp with early possible response. Unfortunately, this is very been difficult to obtain because many vehicles not equipped with such a turbocharger are



Compressor diagram Read

Most people who buy a turbocharger, buy this just hearsay. The Compressor diagrams (= VDG.) Are thereby left entirely out of account and the meisst bought turbocharger completely unsuitable for the existing Motorhard- and software. This can give us a Chg. a lot about the response and the corresponding Boost pressure gradients and the longest drivable pressures say.



Pressure conditions:

The Y-axis provides insights into the absolute charging pressure. At a normal air pressure of approximately (1012 hPa) so you can run at a Overpressure of 1 bar bar go out of an absolute pressure of. 2 Is the atmpshärische pressure low, then also changes the boost pressure

Mass flow rate:

The X-axis gives us the mass flow rate. This can be roughly on the basis of Calculate engine speed, charge air temperature, engine size and boost pressure. Since the exact Calculation however more variables play a role, we go here in detail it a. It remains only to say that the mass flow rate of a cylinder capacity decider Factor is because the higher the displacement, the higher the air requirement. pressure by

Surge limit:

A crucial role in any turbocharger plays the surge limit. Is the Mass flow rate is too low and the boost pressure is very high, you can see that you no longer lies within the characteristic field, ie outside the sphere of competence of the turbocharger. Outside this range, the tears flow from and the air flows back up

again there is a normal pressure ratio. This process is repeated in rapid succession and the resulting sound is "pumped" to be described as.

choke:

It indicates the maximum flow rate of the turbocharger. The diameter at the Compressor inlet is playing a decisive role, because from a certain mass flow more air can not flow through the compressor. The choke is when Chg. Good to recognize it, where the maximum speed of the turbocharger on a straight line walking down. In the illustrated right K2664 Chg. would choke the 0.23 kg / s achieved.