



02 DMG gearMILL machining software (top) - attainable gear quality (bottom)

ATTAINABLE GEAR QUALITY		
DIN	JIS	AGMA
1		16
2		15
3		14
4	0	13
5	1	12
6	2	11
7	3	10
8	4	9
9	5	8



MAX. WORK PIECE SIZES	DMU 80 P (FD)	DMU 125 P (FD)	DMU 160 P (FD)	DMU 210 P (FD)	DMU 340 P (FD)
Travels (X/Y/Z)	800 / 1,050 / 800 mm	1,250 / 1,250 / 1,000 mm	1,600 / 1,250 / 1,000 mm	1,800 / 2,100 / 1,250 mm	2,800 / 3,400 / 1,600 mm
Max. work piece weight	1,500 kg (1,200 kg)	2,500 kg (2,300 kg)	4,000 kg (3,000 kg)	8,000 kg (5,000 kg)	20,000 kg (10,000 kg)
Max. cog diameter	700 mm	1,000 mm	1,500 mm	2,300 mm	3,000 mm
Max. gear length	700 mm	1,000 mm	1,500 mm	2,300 mm	3,000 mm

FD = Milling and turning on a single machine



01 Mr. Srivatsa, Sr. General Manager of Cummins India Ltd. 02 DMU 200 P at the plant in Pune 03 Machining of 16 V crankcase on DMU 200 P

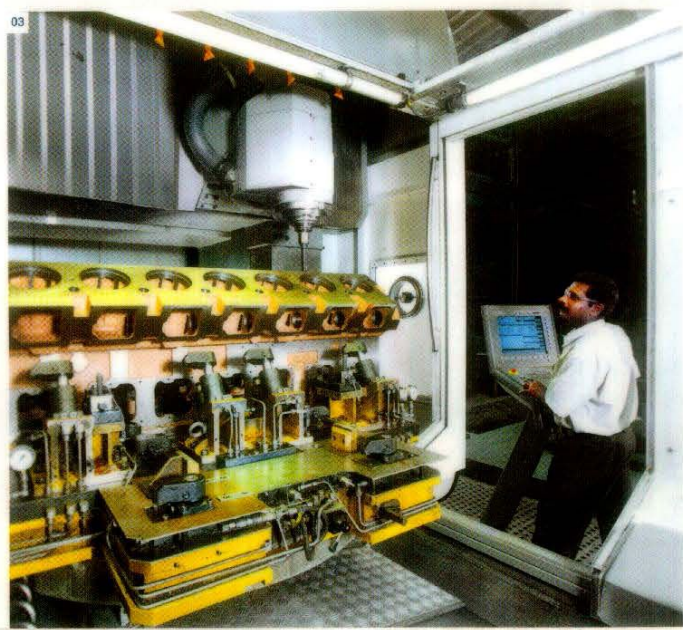
Cummins India's productivity increase with the DMU 200 P

Cummins India Limited (CIL), in Pune since 1962, is the Country's leading manufacturer of diesel and gas engines for power generation, industrial and automotive markets. The largest of the nine entities of Cummins in India, CIL manufactures diesel and natural gas engines in the range of 18 HP to 3,500 HP for power generation, automotive markets and industrial sectors such as mining, oil and gas, pump, rail, agriculture, compressor, construction, defense, and marine environments.

The crankcases for engines produced at CIL are manufactured on DMG's 5-axis Universal Machining Center DMU 200 P, supplied by DMG. DMG India, DECKEL MAHO Pfronten and Cummins India successfully developed and set up a cost efficient, high-tech engineering solution to optimize the potential of its machines together. The advanced features of the DMU 200 P, integrated with automated hydraulic fixtures and new generation high-speed cutting tools, provided for a very efficient process layout that was verified by DECKEL MAHO Pfronten. The result of this was an impressive raise in productivity from 183 minutes to 72 minutes for one process cycle. This gave DMG the competitive edge for this project helping Cummins make significant savings on cost of investment. The project is a great example of international collaboration between Cummins India, DMG India and the factory DECKEL MAHO Pfronten.

The success of the project has gone a long way in strengthening the association between DMG and Cummins. DMG has been a partner and supplier to several Cummins plants worldwide and we are positive this project will result in a long term relationship with Cummins India.

 Cummins India Limited, Kothrud, Pune 411 038, India
T: +91 20 2538 0240, 2538 5435, F: +91 20 2538 0125
www.cumminsindia.com



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