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Granular lubrication by adding small beads to sheared monodisperse granular beds JESSICA COOK, STEPHAN KOEHLER, RAENELL SOLLER, Physics Department, Emory University — We investigate the change in torque of a vane slowly rotating in a monodisperse granular bed when small beads are added. We find that torque decreases and slowly increases with time. Depending on the amount of lubricating beads that have been added, the torque can drop to a level comparable to the torque for a monodisperse bed of small beads. Moreover, the random fluctuations in the torque also decrease and approach those for a monodisperse bed of small beads and slowly increase with time.

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