

SPINNER II[®] *PROFIT* *BUILDER* →

You'll Be Dollars Ahead

A Newsletter on Money-Saving Ideas From
Spinner II Products / T.F. Hudgins, Incorporated
P.O. Box 920946 • Houston, Texas 77292-0946 • 713/682-3651

STEEL MFG'G

PB No. 108

Steel Quenching Dumps Dirt into Oil — Spinner II[®] Oil Cleaning Centrifuge Removes It

Heat treating steel allows designers to improve the basic metal traits to match the toughness and strength required for heavy-duty applications. An internationally-known plain bearing manufacturer in the U.S. midwest consumes in excess of 100,000 pounds of sheet steel every day to produce automotive bearings.

Heat treating at this bearing plant is accomplished "on the run": the steel is unrolled, furnace-heated and quenched in a 1000 gallon tank; quench oil has the capability of pulling large amounts of energy out of the hot steel at a precisely controlled rate, but while that happens, the steel unloads a huge amount of surface and heat treat dirt. This debris, left uncontrolled,

migrates into bearing finish machining. This process swarf must be eliminated for clean bearings, and to prevent the loss of heat transfer ability of the quench oil.

The factory manager decided to apply four Model 600HD centrifuges to reduce and control the dirt load in the quench oil; the unit was mounted on the sump, gravity drained and each supplied with ~20 gpm of oil. Cycling the sump's 1000 gallons once every 15 minutes, large amounts were removed — over 3 pounds of debris is trapped every day by the four centrifuges.

The Spinner II centrifuge — cleaner oil for quench oil tanks without using filters.

