



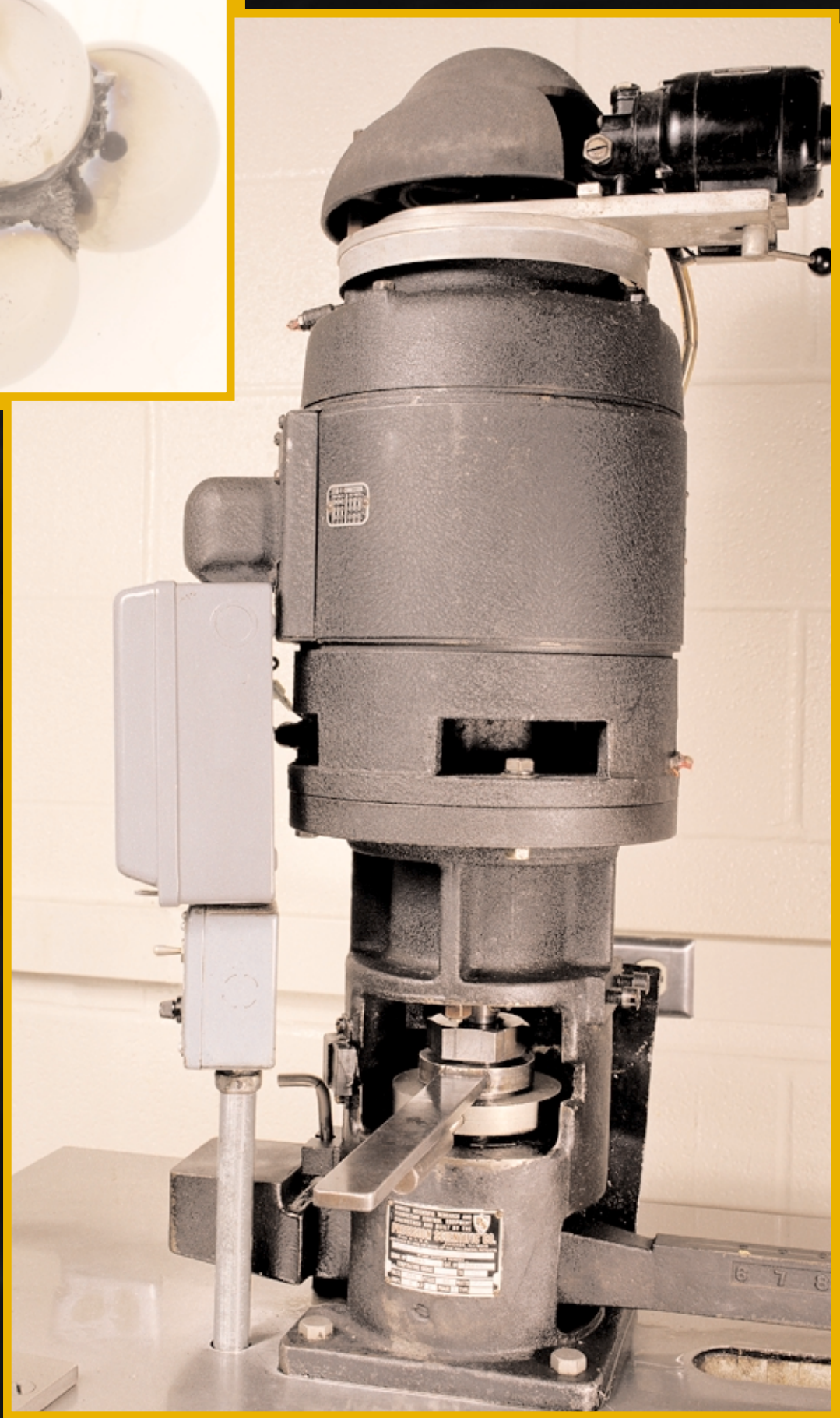
Extreme Pressure Four-Ball Test

Many extreme pressure (EP) additives are activated under severe contact conditions in which traditional antiwear additives are ineffective. As a result, EP additives are normally graded according to the contact load required for scuffing failure, rather than their ability to minimize material loss by wear.

The ruggedly built-four ball EP test apparatus produces the severe contact conditions needed to evaluate these chemistries while maintaining accurately controlled test conditions. The contact geometry and test specimens are identical to those used in the more lightly loaded four-ball friction and wear tests.



D004784



DE135642

**Typical Test Conditions for
ASTM D 2783 for Lubricating Fluids**
Temperature:

- 18 - 35°C (65 - 95°F)

Speed

- 1760 +/- 40 rpm

Duration

- 10 seconds

Load

- 6 - 800 kgf

**Typical Test Conditions for
ASTM D 2596 for Greases**
Temperature:

- 27 +/- 8°C (80 +/- 15°F)

Speed

- 1770 +/- 60 rpm

Duration

- 10 seconds

Load

- 6 - 800 kgf

Related Test Methods:

- The most widely used test methods for the EP Four-Ball test are ASTM D 2783 for liquid lubricants and ASTM D 2596 for greases.