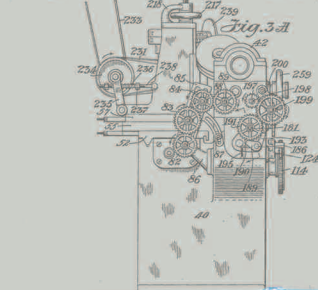
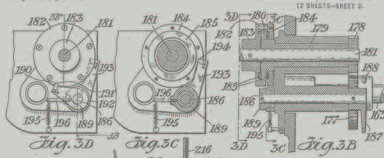


1,340,030.

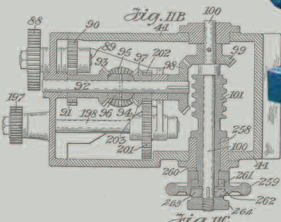
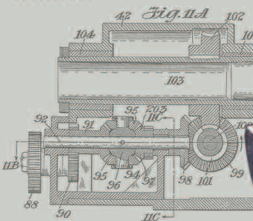
D. FITZPATRICK,
WORK GRINDING MACHINE.
APPLICATION FILED AUG. 2, 1915. Patented May 11, 1920.
12 SHEETS-SHEET 2.



Witnesses:
Charles Cook
Charles Laggett

D. FITZPATRICK,
WORK GRINDING MACHINE.
APPLICATION FILED AUG. 2, 1915.

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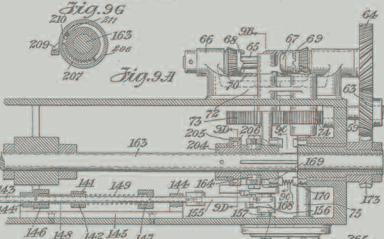


Witnesses:
Charles Cook
Charles Laggett
Inventor:
David Fitzpatrick
By Messrs. W. A. Austin
His Attorneys.

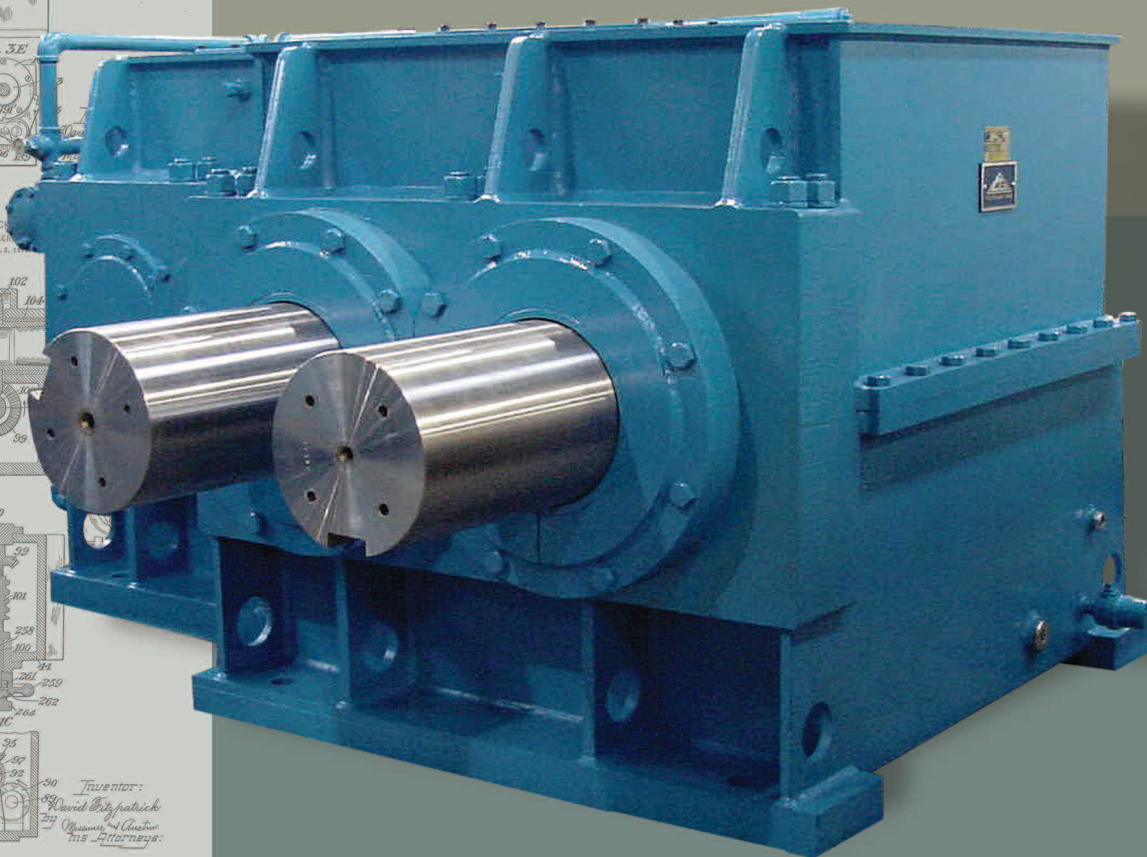
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Charles Cook
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His Attorneys.



STANDARD PARALLEL &
CUSTOM ENCLOSED DRIVES

Cleveland



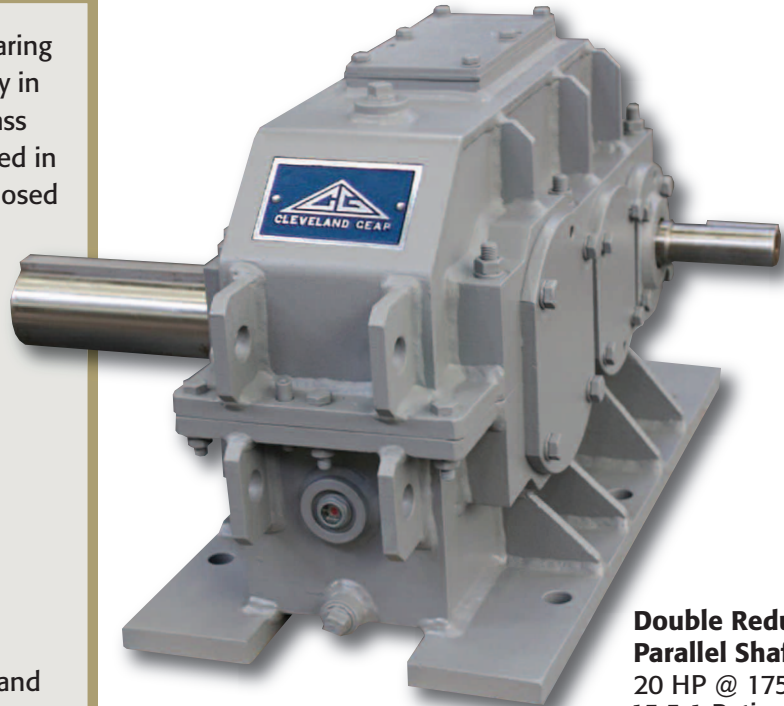
STANDARD PARALLEL & RIGHT ANGLE PARALLEL

Cleveland Gear has been producing open gearing for over 100 years. We were the first company in the U.S. to manufacture worm gearing for mass production. Today Cleveland Gear is recognized in the industry as the leader in gearing and enclosed drives. We have designed and produced custom gearing for industries such as:

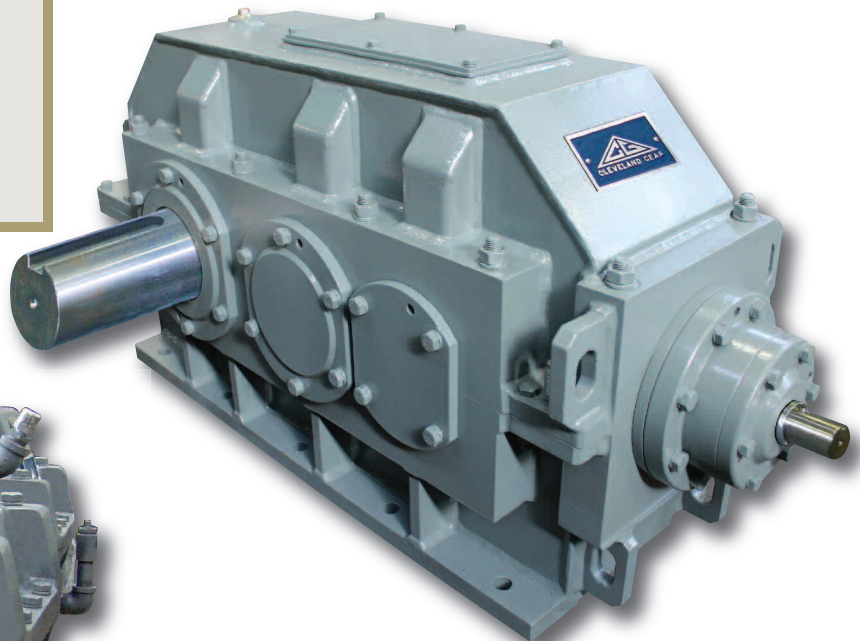
- **Steel Producing and Processing**
- **Rubber Products**
- **Mineral Processing**
- **Movable Bridges**
- **Material Bridges**
- **Overhead Cranes**
- **Material Handling**

Cleveland Gear offers standard parallel shaft and helical-bevel right angle parallel shaft drives.

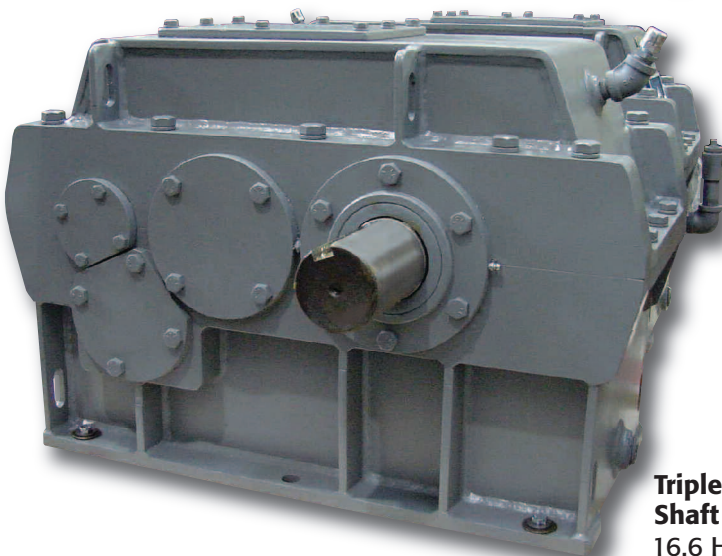
- **Offered in Single thru Quad Reduction**
- **Fabricated Steel Housing**
- **5 to 10,000 HP**
- **Up to 5.0 million in-lbs. of output torque**



Double Reduction Parallel Shaft Drive:
20 HP @ 1750 RPM;
15.5:1 Ratio;
10,856 in-lbs. O.T.



Triple Reduction Right Angle Bevel Drive:
100 HP @ 1750 RPM;
45.54:1 Ratio;
164,000 in-lbs. O.T.



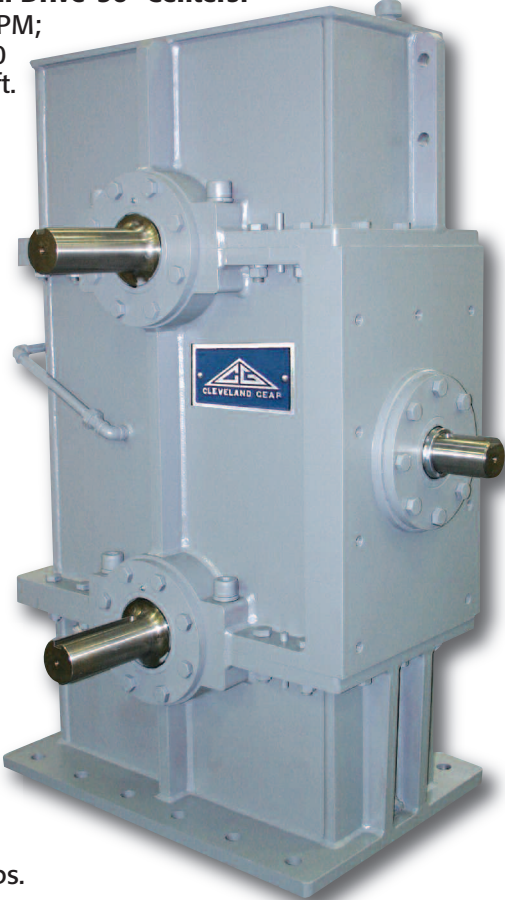
Triple Reduction Parallel Shaft Drive (T-750):
16.6 HP @ 675 RPM;
60:1 Ratio; 92,997 in-lbs. O.T.

CUSTOM & REVERSED ENGINEERED DRIVES

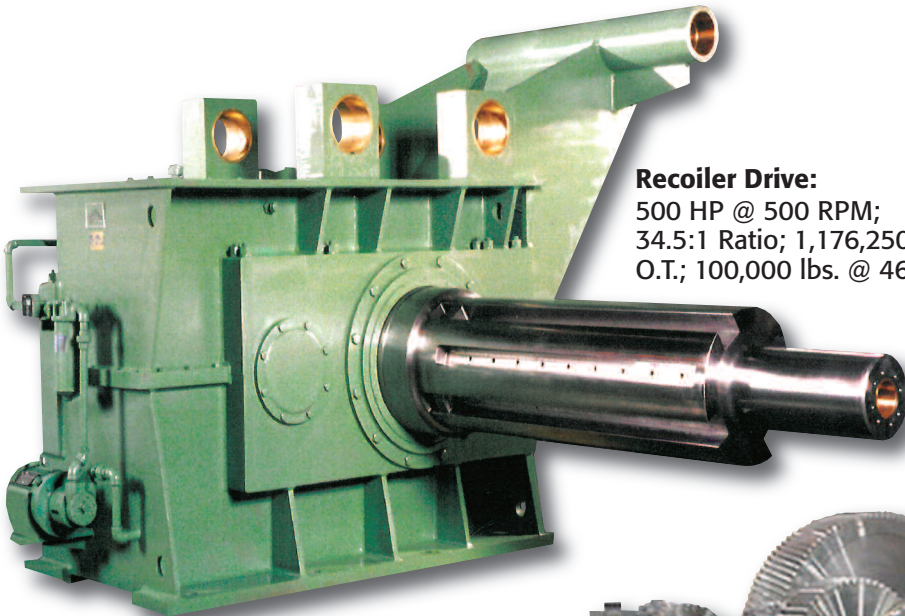
Custom Mixer Drive-Dual output Shaft:
30 HP @ 1800 RPM; 30.22:1
Ratio; 15,872 in-lbs. O.T.



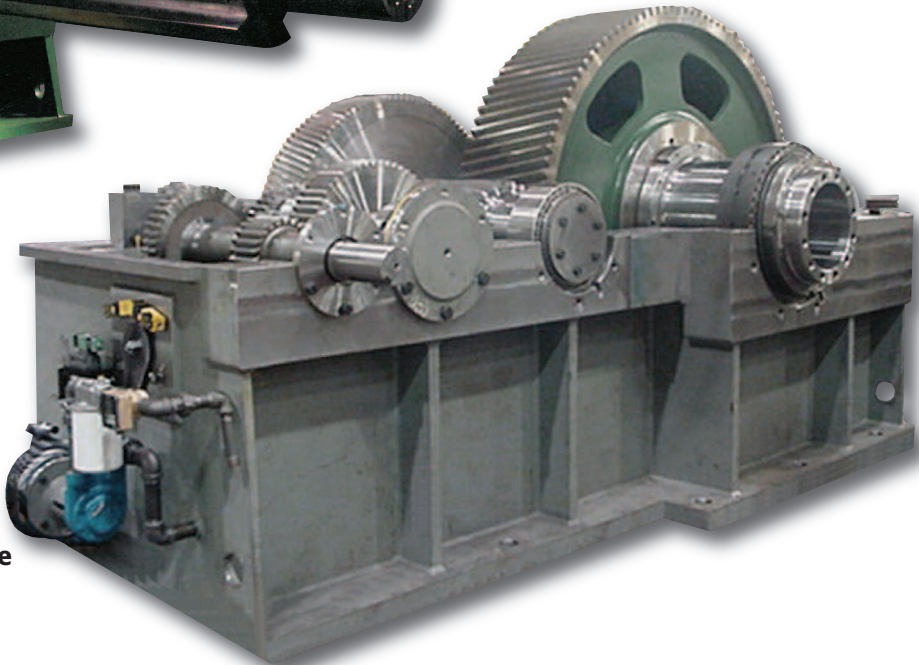
Vertical Pinch Roll Drive-36" Centers:
135 HP @ 1750 RPM;
50:1 Ratio; 99,670
in-lbs/output shaft.



Recoiler Drive:
500 HP @ 500 RPM;
34.5:1 Ratio; 1,176,250 in-lbs.
O.T.; 100,000 lbs. @ 46 in.



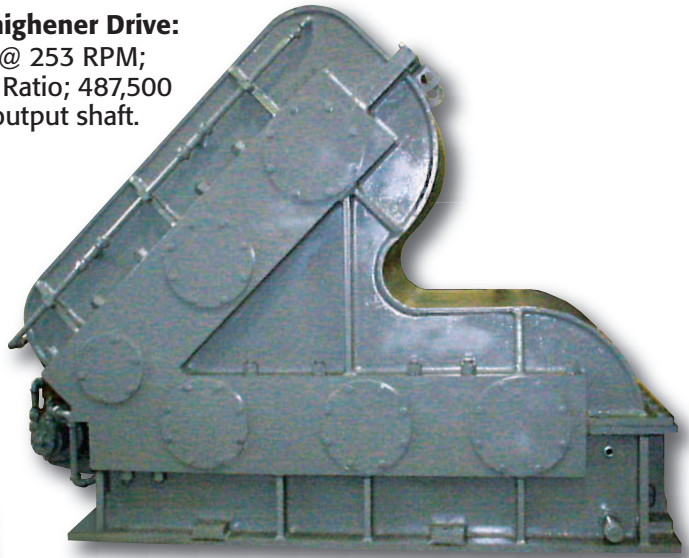
**Two Speed
Custom Drive**



CUSTOM & REVERSED ENGINEERED DRIVES

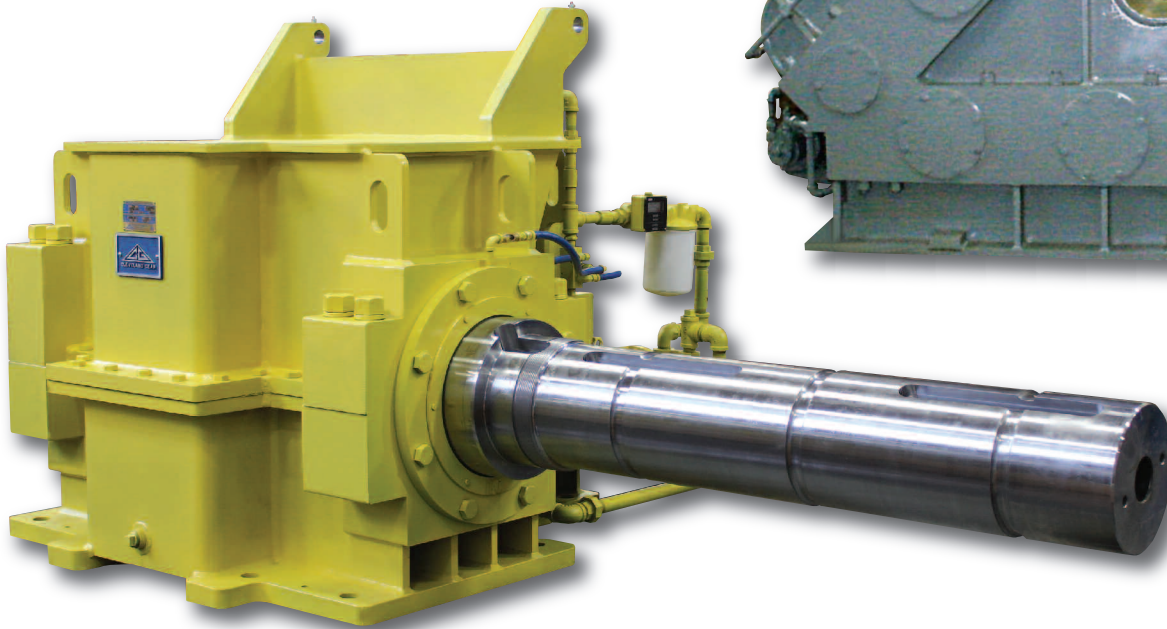
Bar Straighener Drive:

196 HP @ 253 RPM;
20.52:1 Ratio; 487,500
in-lbs./output shaft.



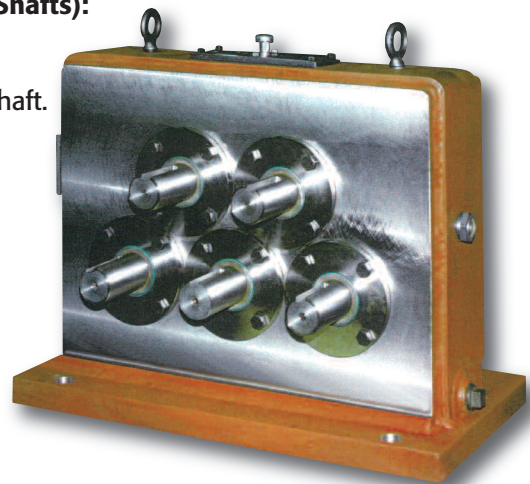
Uncoiler Drive:

125 HP @ 650/2000 RPM;
5.053:1 Ratio; 61,238 in-lbs. O.T.



Flattener Drive (5 Shafts):

75 HP @ 547 RPM;
1.00:1 Ratio;
2,000 in-lbs. O.T./Shaft.

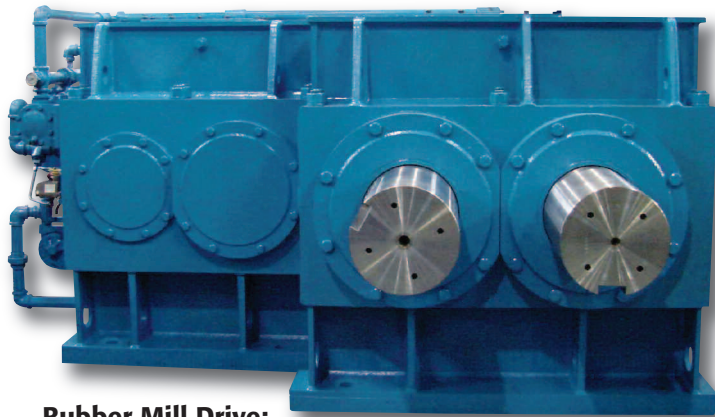


Two Speed Reel Drive:

600 HP @ 500/1500 RPM;
20:1 & 50:1 Ratios;
4,348,700 in-lbs. O.T.

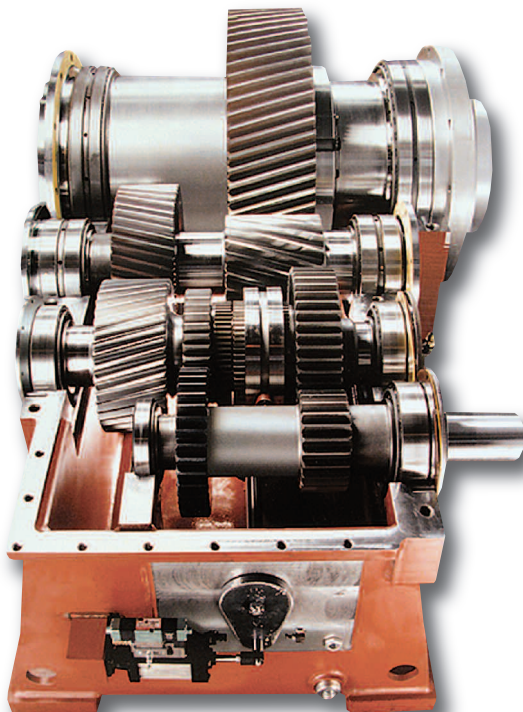


CUSTOM & REVERSED ENGINEERED DRIVES



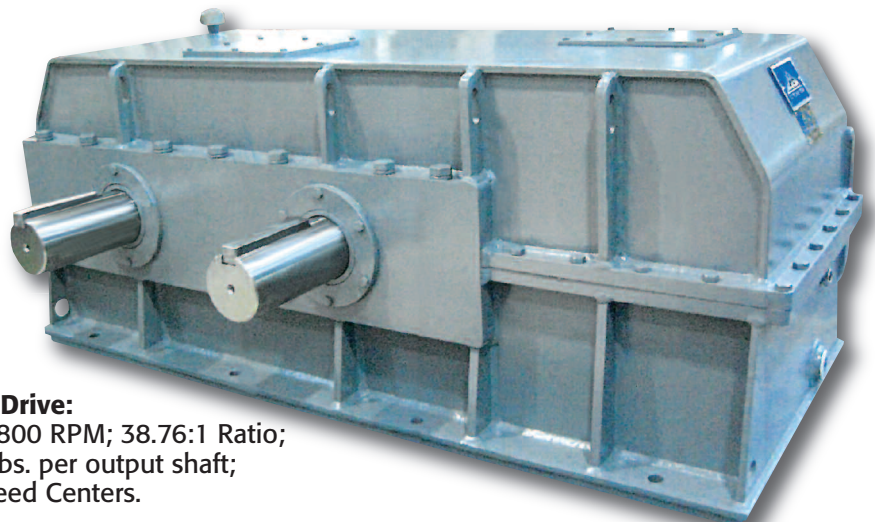
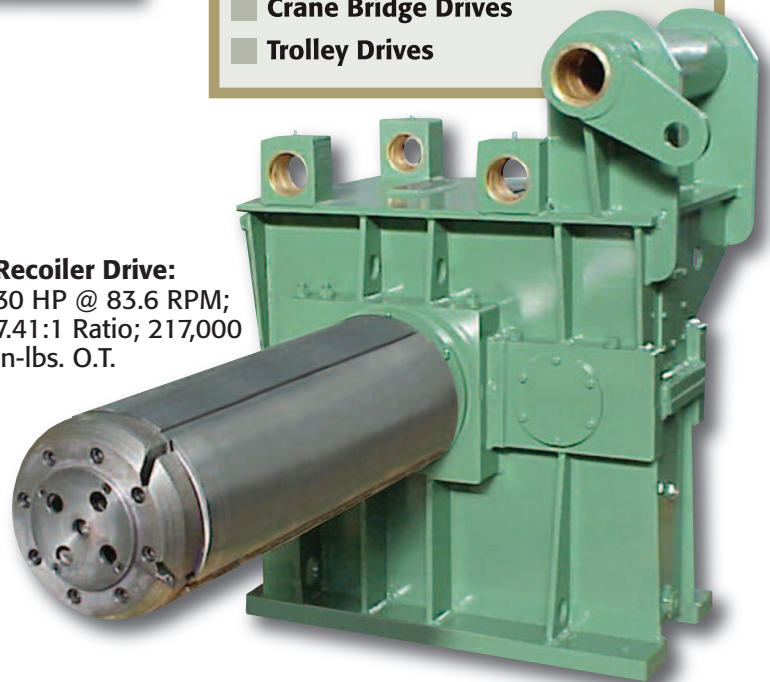
Rubber Mill Drive:
4,000 HP @ 900 RPM;
15.42:1 Ratio; 3,000,000
in-lbs. per output shaft;
22.26" Low Speed Centers.

- Uncoiler & Recoiler
- Multi-speed Drives (2,3, & 4 Speed)
- Flatteners
- Leveler Drives
- Rubber Mills
- Screw Down
- Horizontal Pinch Rolls
- Vertical Pinch Rolls
- Transfer Car
- Accumulator
- Slitters
- Cooling Bed Transfer
- Crane Bridge Drives
- Trolley Drives



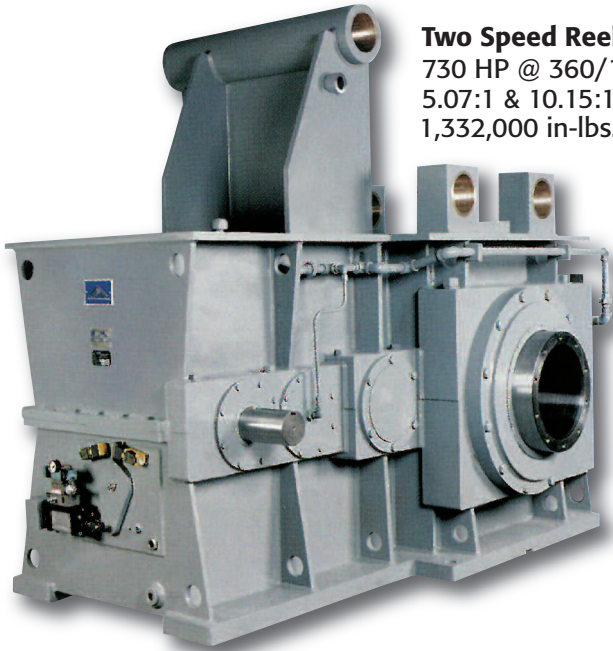
**Two Speed Custom
Drive-Pneumatically
Shifted**

Recoiler Drive:
30 HP @ 83.6 RPM;
7.41:1 Ratio; 217,000
in-lbs. O.T.

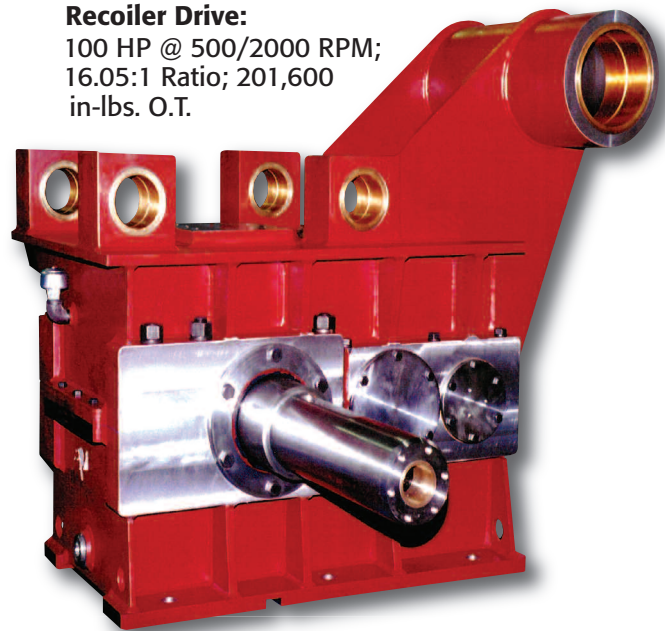


Compactor Drive:
150 HP @ 1800 RPM; 38.76:1 Ratio;
134,400 in-lbs. per output shaft;
24" Low Speed Centers.

CUSTOM & REVERSED ENGINEERED DRIVES



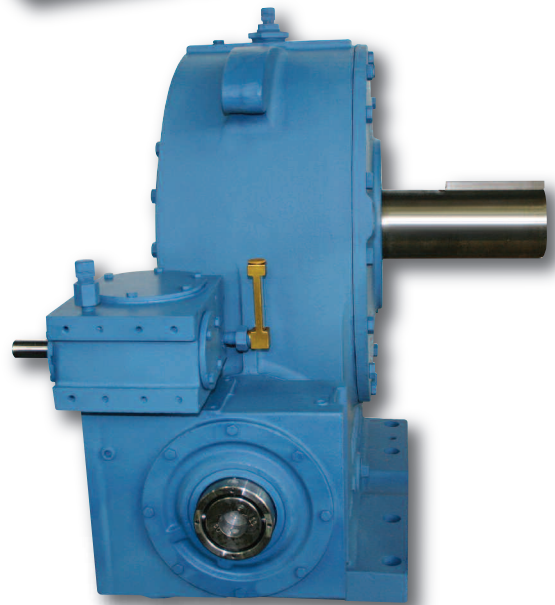
Two Speed Reel Drive:
730 HP @ 360/1440 RPM;
5.07:1 & 10.15:1 Ratios;
1,332,000 in-lbs. O.T.



Recoil Drive:
100 HP @ 500/2000 RPM;
16.05:1 Ratio; 201,600
in-lbs. O.T.



Stub Uncoiler Drive:
180 HP @ 500 RPM;
55:1 Ratio;
1,247,800 in-lbs. O.T.;
53,000 lbs @ 20in.



Furnace Charging Drive:
3 HP @ 1200 RPM; 18,900:1
Ratio; 180,000 in-lbs. O.T.



CLEVELAND GEAR CO.

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CLEVELAND, OHIO 44104

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TOLL-FREE 800-423-3169

www.clevelandgear.com

