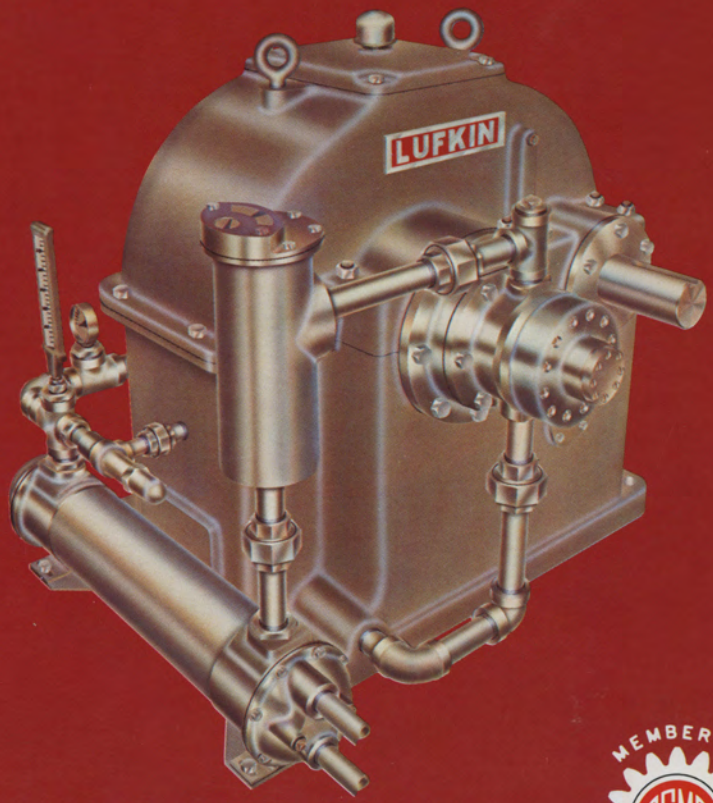
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LUFKIN

HIGH SPEED GEAR UNITS



GEAR
CATALOG
NO.
G-37

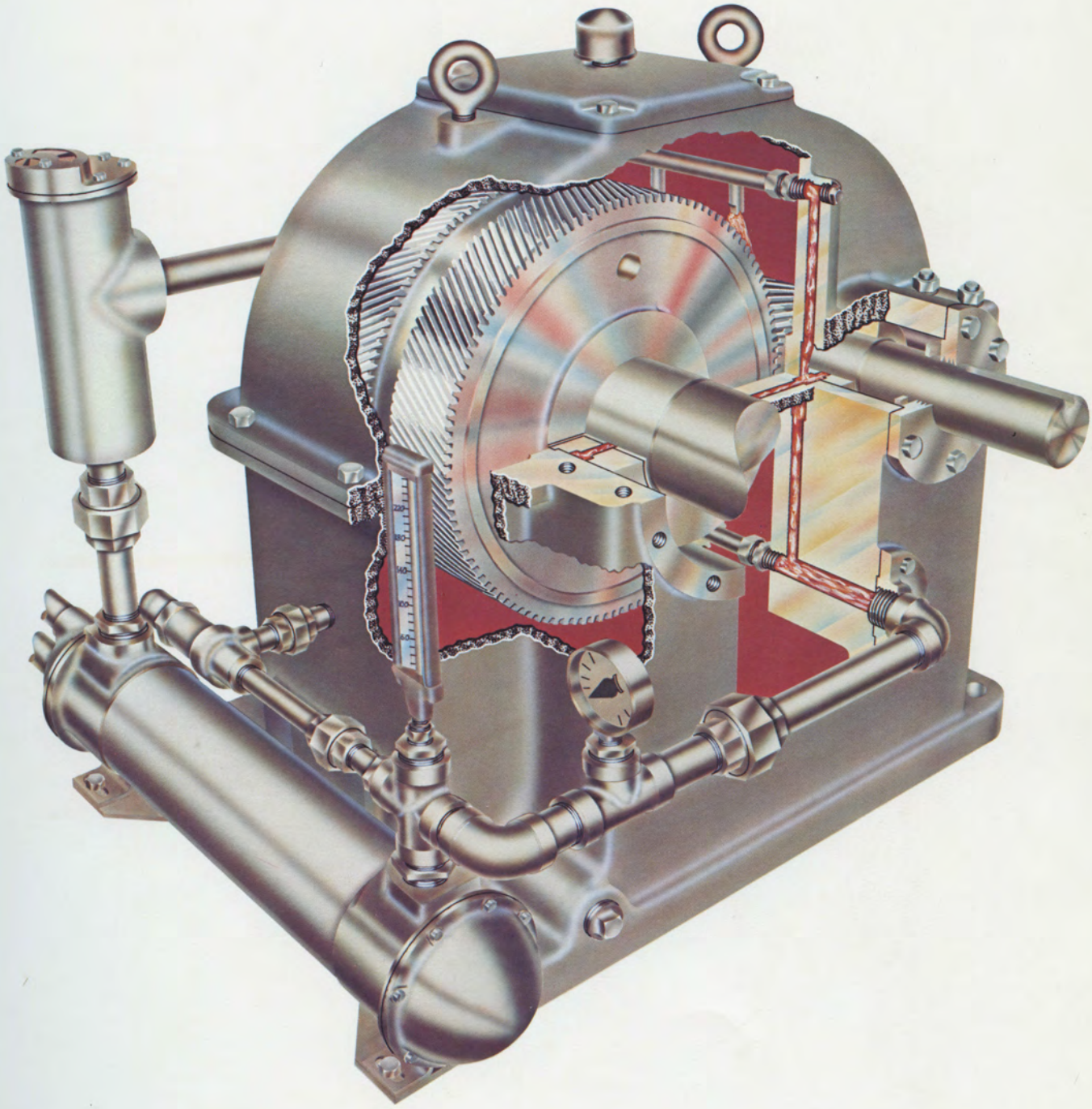
LUFKIN INDUSTRIES, INC.
LUFKIN, TEXAS

MEMBER OF AGMA

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TYPE N HIGH SPEED GEAR UNITS

LUBRICATION SYSTEM



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2C69

LUFKIN *High Speed Gear Units*

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PLANT FACILITIES

From an humble beginning in 1902 as a small repair shop for sawmill and railroad machinery, LUFKIN Industries, Inc. today occupies a modern plant covering over 80 acres with approximately 18 acres under roof. This plant is equipped with ever facility necessary for the manufacture of quality and precision gears. Pioneering the adaptation of the gear reducer to the oil well pumping unit in 1923, LUFKIN has placed over 125,000 of these units in service covering every oil producing country in the world. LUFKIN has gained over these years both the know-how and facilities for producing quality and dependable gears for any industry or application, and has specialized in the production of industrial gears since 1939.

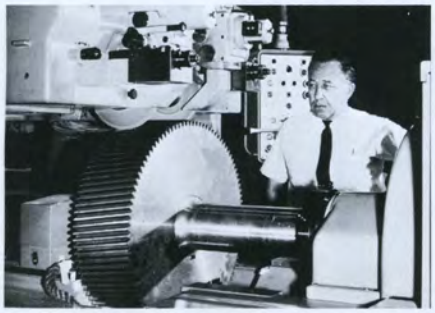
MACHINE SHOP



The main bay of the Machine Shop is 905 feet long and has over 200,000 square feet of floor space. Over 175 modern production machines are in use here. Among these are 21 Sykes herringbone gear generators and 10 hobbing machines with the capacity to cut a 16 foot pitch diameter, 48 inch face gear.



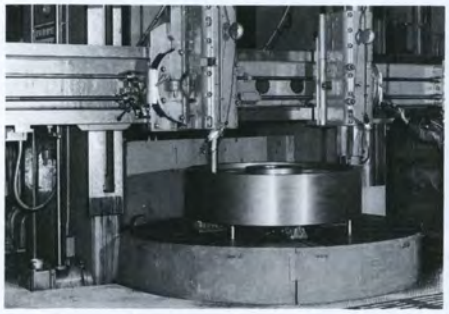
Three Axis Numerically Controlled Horizontal Boring, Milling, and Drilling Machine with Indexing Table.



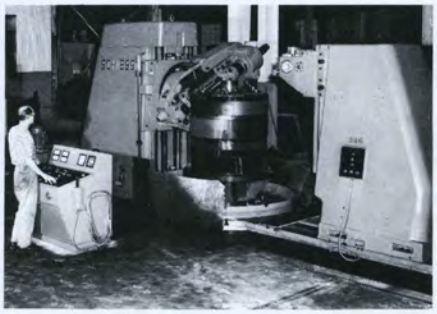
Maag Grinder for Ultra-Precision Single Helical Gears.



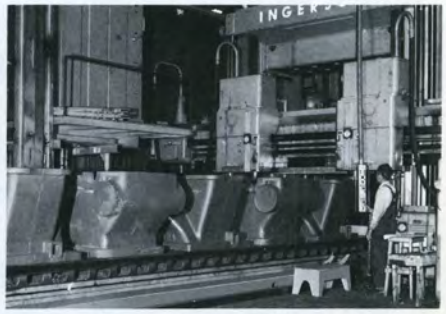
Three Axis Numerically Controlled Drill Press. Capacity: 7 feet x 20 feet Machining Area.



Vertical Boring Mill.
Capacity: 10′ - 6″ diameter.



Scheiss Hobbing Machine, Capacity: 16 Feet Diameter x 48 Inch Face.



Large Planer Type Milling Machine. Capacity: 9 feet wide x 8 feet high x 26 feet travel.

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Gear Checkers used for Controlling Gear Accuracy.

INSPECTION

Quality Control procedures carried out from material purchasing specifications to final assembly assure the highest quality product.



Ultra-Sonic Checking Equipment for Material Quality Control.



Inside View of Structural and Welding Shop.

STRUCTURAL SHOP

All cutting, welding and fabricating of structural parts is performed in the main structural building. This building has three acres under one roof. The structural shop is equipped with all modern equipment for the fabrication of large structural items.



Torch Cut Gears for Slow Speed Application.



Reducer housing and cover castings on Foundry Yard.

FOUNDRY

The Foundry is equipped with the most modern equipment available for the production of gray and nodular iron castings, with a capacity of 175 tons per day.



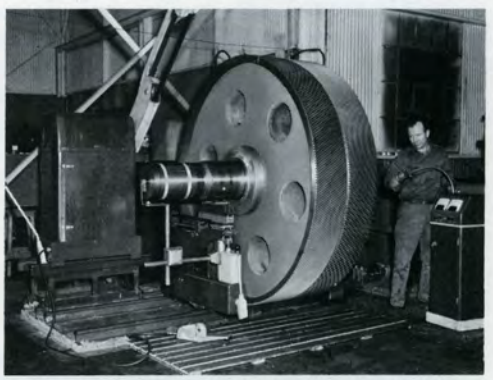
Large Moulding Machine. Capacity: 12,000 Pounds.



Lapping two pinions with large propulsion gear on special variable center lapper.

GEAR FINISHING

Complete facilities are available for balancing, assembling and testing gear units; all components are thoroughly inspected and tested before shipment.



Precision Dynamic Balancing Available.

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GENERAL SPECIFICATIONS

ENGINEERING

The high speed digital computer is used to assist LUFKIN's design Engineers evaluate each design for maximum practical torque capacity based on the latest AGMA standards. In this analysis, tooth geometry is evaluated to give the user an optimum balance between tooth beam strength and maximum durability rating based on the physical dimensions of the gear set.

APPLICATION

Type N and NM High Speed Gear Units are used for both speed reducing and speed increasing service. These High Speed units must be used when the pinion speed is higher than 3600 RPM or when the pitch line velocity is higher than 5000 feet per minute.

HOUSINGS

Housings are of controlled specification high tensile gray iron carefully stress relieved before maching for dimensional stability during machining and operating life. Housings are two piece construction with joint between housing and cover accurately machined. Interior surfaces are thoroughly shotblasted, cleaned, and painted to insure absolute freedom from foreign particles. Housings are designed for heavy duty service to provide maximum rigidity to assure precision gear alignment. All housings are precision bored and bore alignment is certified before assembly.

Fabricated steel housings are available on special order when required by the application.

Housing design incorporates the necessary oil piping for bearing and mesh lubrication.

GEARS

Type N and NM unit gears are the double helical type cut on precision hobbing machines. The gear teeth are cut after the gear has been mounted on its shaft and finish turned to assure concentricity between pitch circle and bearing journals. Lufkin holds tooth profile, spacing, runout, and lead to precise tolerances to assure quiet, troublefree operation. Finished gear assemblies are dynamically balanced to precision machinery standards. All gear blanks are made from high alloy, high tensile steel. In addition, type N unit gears are lapped to improve surface finish and insure quiet operation at higher speeds.

PINIONS

Except for very low ratios which result in large pinion diameters, pinions are made integral with their shafts. Material is high alloy, high tensile steel. Pinion shaft extensions are ground to nominal dimensions shown in rating tables with tolerance of plus or minus .0005".

BEARINGS

Type NM units—The slow speed bearings are anti-friction self-aligning type mounted in bearing carriers. The high speed bearings are centrifugally cast babbitt type with a solid steel shell.

Type N Units—The slow speed and high speed bearings are centrifugally cast babbitt with a split steel shell. A flanged babbitted thrust bearing is used on the low speed shaft for axial alignment and a nominal amount of coupling thrust. When customer specified thrust exceeds standard thrust capacity, a tilting pad or tapered land thrust bearing can be used. When required by operating conditions, high stability anti-whirl bearings are furnished, and tilting pad journal bearings are available as an option.

LUBRICATION

Type NM and N units use a full pressure lubricating system. A positive displacement pump picks up the oil from the sump section of the gear housing and delivers the oil to bearings and gear mesh. All oil header and distribution piping to bearings and gear mesh is internal. The standard lubrication system includes filter, pressure gauge, oil cooler, thermometer, level indicator and a pressure regulating relief valve. For combined lube systems using dry sump units, flanged oil inlet and oil drain connections are furnished.

AUXILIARY EQUIPMENT

Type NM and N units are available with any of the required auxiliary equipment such as oversize lube oil pump, thermocouples, RTD's, oil heaters, couplings, low pressure and high temperature switches, special bearings, coupling guards, sole plates, special piping, vibration detectors, etc. Also various specifications such as API 613 can be met.

EXTREME HIGH SPEED GEAR UNITS

Lufkin manufactures all types of extreme high speed gear units for special applications. These units are available as both single and double helical designs and can be custom designed to the requirements of the application. These units generally use either through hardened or case hardened and ground gearing. Gear grinding is done by the Maag process for the ultimate in accuracy. All extreme high speed gear applications must be submitted to Lufkin for recommendations.

MOTOR BASES

One-piece structural steel bases are available for mounting both the gear reducer and prime mover. These are fabricated by electric welding using heavy section steel plate or structural sections and are stress-relieved after welding. All bases are custom-built to suit each individual job. In some cases common bases can be provided to accommodate the driven machine also.

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EXPLANATION OF RATING TABLES

HORSEPOWER RATINGS

The horsepower capacities of all Lufkin high speed gears are based on the latest Standard Practices of the American Gear Manufacturers Association of which Lufkin has been a member for many years. The ratings for the different units are shown on pages 8 to 18.

The horsepower ratings listed in the rating tables are for a service factor of 1.0. For any type of prime mover and driven machine combination, the horsepower load must be modified by the appropriate service factor, as explained on the following pages, before the proper gear reducer can be selected.

THERMAL RATINGS

Lufkin High Speed gear units, when furnished with an integral lubrication system, have a thermal rating equal to or greater than the transmitted load. For combined lubrication systems, consult Lufkin for heat rejection rates and required oil flow.

SERVICE FACTORS

The selection of a gear unit for a certain job depends on the type of prime mover and the character of the driven machine. These variables enter into the selection of high speed units through the use of Service Factors.

A tabulation of the required service factors for machinery generally driven by high speed gear units is shown in the table on page 7. In addition to the tabulated service factor, a prime mover overload factor must be applied.

In selecting a high speed gear unit, the tabulated catalog rating of the unit must be equal to or greater than the maximum continuous horsepower capacity of the prime mover multiplied by any overload capacity the prime mover may have. This resulting prime mover capacity then must be multiplied by the required service factor.

RATIOS

The gear ratios listed in the rating tables are for tabulation purposes only. The exact ratio required or a very close approximation, within 3 percent, can be furnished for each application. The approximate horsepower ratings for intermedite ratios not shown in the tables can be determined by interpolation.

SHAFT ENDS

Special shaft end's (reduced diameter, taper, etc.) are available. Refer to factory for availability.

SELECTION OF TYPE N AND NM UNITS

1. Standard Type NM Units permit maximum operating speeds up to 6,000 RPM and 8,000 feet per minute pitch line velocity.
2. Standard Type N Units permit speeds up to 20,000 RPM and 20,000 feet per minute pitch line velocity. Speeds over 13,000 RPM must be referred to the factory for recommendations.
3. Select the required gear service factor from the table on page 7.
4. Calculate the required catalog or AGMA Class 1 horsepower rating by multiplying the maximum continuous prime mover horsepower by the service factor and the prime mover overload factor. Based on experience, some gear users may prefer a larger service factor than tabulated. In this case, the larger service factor should be used.
5. Determine the required gear ratio by dividing the higher speed by the lower speed.
6. Refer to the rating tables to select a unit size having the required rating at the ratio and pinion RPM of the application. In many cases it will be necessary to interpolate between shaft speeds and ratios.
7. Check the pitch line velocity and be sure the required rating does not fall in the rust shaded area of the table. These units must be referred to the factory for recommendations. All ratings in the non-shaded area of the rating tables require Type N units. Ratings in the gray shaded area of the rating tables may use either type N or type NM units.

   Formula for calculating correct pitch line velocity.

$$\text{Pinion P.D.} = \frac{2 \times \text{Center Distance}}{\text{Ratio} + 1}$$

$$\text{PLV (ft./min.)} = \frac{\text{Pinion P.D.} \times 3.14 \times \text{RPM}}{12}$$

8. If ratios higher than those tabulated are required, consult the factory for recommendations.

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Example

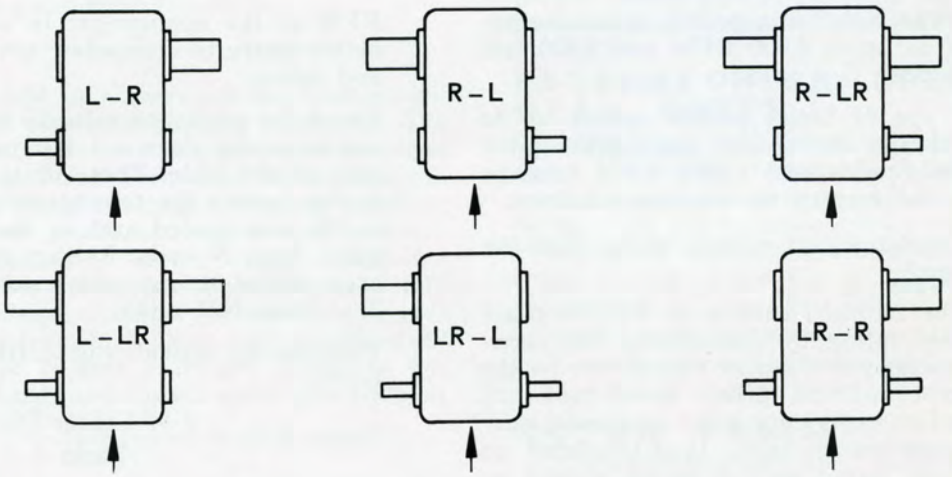
A speed increaser is required to transmit 2500 horsepower from an 1800 RPM electric motor to a centrifugal pump at 6350 RPM. The motor has an overload factor of 1.15.

1. From the table on page 7 a centrifugal pump driven by an electric motor requires a service factor of 1.3. The required AGMA class 1 or catalog horsepower rating is: $2500 \times 1.3 \times 1.15 = 3738$ horsepower
2. The gear ratio is: $6350/1800 = 3.53:1$
3. On page 12 an N1404C has a rating of 4031 H.P. at 6000 RPM and a 3.37:1 ratio. Interpolating for 3.53:1 ratio and 6350 RPM, the catalog or AGMA class 1 rating is 4050 H.P.
4. To check the selection, unit service horsepower rating is $4050/(1.3 \times 1.15) = 2709$ H.P. Since the actual service rating exceeds the required service rating of 2500 H.P., the selection is correct.

INFORMATION REQUIRED WITH ORDER OR INQUIRY

The following information should be furnished with a request for a quotation or with a purchase order for a gear reducer in order that we may furnish your exact requirement promptly without the delay of having to request additional information:

1. Actual horsepower to be transmitted, maximum torque load due to starting or stall condition, and frequency of maximum torque condition.
2. Prime mover overload factor.
3. Speed of primer mover and driven machine, or speed of either shaft and gear ratio.
4. Type of prime mover (if engine, give number of cylinders).
5. Type of driven machine.
6. Direction of rotation (clockwise or counterclockwise, looking at extended end of high speed shaft).
7. If flexible couplings also purchased from us furnish diameter and key dimensions of connecting shafts.
8. Shaft extensions should be specified per shaft arrangement designations shown below.
9. If motor base is required, furnish certified bolting layout for motor.
10. Report any unusual conditions of installation or operation.
11. On Dry Sump Units, specify viscosity of oil to be used and inlet oil temperature and pressure.



NOTES:

1. Code: L = Left; R = Right.
2. Arrows indicate line of sight to determine direction of shaft extensions.
3. Letters preceding the hyphen refer to number and direction of high-speed shaft extensions.
4. Letters following the hyphen refer to number and direction of low-speed shaft extensions.

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SERVICE FACTORS FOR HIGH SPEED UNIT SELECTION

Types N and NM

APPLICATION	SERVICE FACTOR — PRIME MOVER: Motor	Turbine	Internal Combustion Engine (Multi-Cylinder)
BLOWERS			
Centrifugal	1.4	1.6	1.7
Lobe	1.7	1.7	2.0
COMPRESSORS			
Centrifugal-process gas except air conditioning	1.3	1.5	1.6
Centrifugal-air conditioning service	1.2	1.4	1.5
Centrifugal-air or pipe line service	1.4	1.6	1.7
Rotary-axial flow-all types	1.4	1.6	1.7
Rotary-liquid piston (Nash)	1.7	1.7	2.0
Rotary-lobe-radial flow	1.7	1.7	2.0
Reciprocating-3 or more cyl.	1.7	1.7	2.0
Reciprocating-2 cyl.	2.0	2.0	2.3
DYNAMOMETER - test stand	1.1	1.1	1.3
FANS			
Centrifugal	1.4	1.6	1.7
Forced draft	1.4	1.6	1.7
Induced draft	1.7	2.0	2.2
Industrial and mine (large with frequent start cycles)	1.7	2.0	2.2
GENERATORS AND EXCITERS			
Base load or continuous	1.1	1.1	1.3
Peak duty cycle	1.3	1.3	1.7
PUMPS			
Centrifugal (all service except as listed below)	1.3	1.5	1.7
Centrifugal-boiler feed	1.7	2.0	
Centrifugal-descaling (with surge tank)	2.0	2.0	
Centrifugal-hot oil	1.5	1.7	
Centrifugal-pipe line	1.5	1.7	2.0
Centrifugal-water works	1.5	1.7	2.0
Dredge	2.0	2.4	2.5
Rotary-axial flow-all types	1.5	1.5	1.8
Rotary-gear	1.5	1.5	1.8
Rotary-liquid piston	1.7	1.7	2.0
Rotary-lobe	1.7	1.7	2.0
Rotary-sliding vane	1.5	1.5	1.8
Reciprocating-3 cyl. or more	1.7	1.7	2.0
Reciprocating-2 cyl.	2.0	2.0	2.3
PAPER INDUSTRY			
Jordan or refiner	1.5	1.5	
Paper machine-line shaft	1.3	1.3	
Paper machine-sectional drive	1.5		
Pulp beater	1.5		
SUGAR INDUSTRY			
Cane knife	1.5	1.5	1.8
Centrifugal	1.5	1.7	2.0
Mill	1.7	1.7	2.0

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HORSEPOWER RATING TABLES

TYPE N & NM

The Horsepower Ratings listed in the tables below are Mechanical ratings calculated by the A.G.M.A. formula using a Service Factor of 1. See pages 5 and 6 for information on selecting reducers.

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N600C & NM600C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000	3045	2623	2362	1917	1514	1166	877	646	....	....
17000	2588	2230	2008	1630	1287	991	745	549	....	....
14000	2131	1836	1653	1342	1060	816	614	452	....	....
12000	1827	1574	1417	1150	908	699	526	397	....	....
10000	1522	1311	1181	958	757	583	451	346	....	....
8000	1218	1049	945	767	609	487	381	292	....	....
7000	1065	918	826	673	551	440	344	263	....	....
6000	913	787	714	600	490	391	305	233	....	....
5000	761	670	578	522	426	339	264	201	....	....
4000	639	566	487	440	358	285	221	168	....	....
3600	590	522	449	405	329	262	203	154	....	....
3000	513	454	389	325	285	226	175	132	....	....
2400	425	380	326	272	238	188	145	110	....	....
1750	331	291	252	210	183	144	111	84	....	....
1150	234	206	175	147	119	101	77	58	....	....

Sizes No. N602C & NM602C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000	3449	2972	2653	2153	1700	1309	985	726	....	....
17000	2932	2526	2255	1830	1445	1113	837	617	....	....
14000	2414	2080	1857	1507	1190	916	689	508	....	....
12000	2069	1783	1591	1292	1020	785	591	446	....	....
10000	1724	1486	1326	1076	850	654	507	389	....	....
8000	1379	1188	1061	861	684	547	428	328	....	....
7000	1207	1040	928	756	619	495	386	295	....	....
6000	1034	891	802	674	551	439	343	262	....	....
5000	862	759	655	586	479	381	297	226	....	....
4000	724	642	552	494	402	320	248	189	....	....
3600	668	592	509	455	370	294	228	173	....	....
3000	581	514	441	368	320	253	196	149	....	....
2400	482	431	369	308	267	211	163	123	....	....
1750	375	330	286	238	205	162	125	94	....	....
1150	266	233	199	167	134	113	87	65	....	....

Sizes No. N604C & NM604C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000	3844	3312	2936	2383	1882	1449	1090	....	....	....
17000	3267	2815	2496	2026	1600	1232	927	....	....	....
14000	2691	2318	2055	1668	1317	1014	763	....	....	....
12000	2306	1987	1762	1430	1129	869	654	....	....	....
10000	1922	1656	1468	1191	941	724	561	....	....	....
8000	1537	1324	1174	953	757	606	474	....	....	....
7000	1345	1159	1027	837	685	547	428	....	....	....
6000	1153	993	888	746	610	486	379	....	....	....
5000	961	846	730	649	530	422	328	....	....	....
4000	807	715	615	546	445	354	275	....	....	....
3600	745	660	567	503	410	325	252	....	....	....
3000	648	573	492	410	354	281	217	....	....	....
2400	537	480	412	343	295	234	180	....	....	....
1750	418	368	319	265	227	179	138	....	....	....
1150	296	260	222	186	150	125	96	....	....	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N800C & NM800C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000			4955	4021	3213	2475	1977	1459	1058	....
17000		5040	4211	3418	2731	2104	1681	1240	899	....
14000	4784	4150	3468	2814	2249	1733	1384	1021	740	....
12000	4100	3557	2973	2412	1928	1485	1186	875	631	....
10000	3417	2964	2477	2010	1606	1237	988	728	551	....
8000	2733	2371	1982	1608	1285	990	801	616	465	....
7000	2392	2075	1734	1407	1124	871	724	556	419	....
6000	2050	1778	1486	1206	970	776	644	494	372	....
5000	1708	1482	1238	1021	846	676	560	429	322	....
4000	1366	1193	1029	863	705	569	470	359	269	....
3600	1233	1095	950	796	650	524	433	330	247	....
3000	1076	954	826	692	563	453	352	285	213	....
2400	908	803	690	580	472	379	294	237	177	....
1750	668	627	537	450	365	289	226	182	135	....
1150	477	420	381	316	257	203	158	127	94	....

Sizes No. N802C & NM802C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000			5694	4621	3693	2845	2255	1664	....	....
17000		5792	4840	3928	3139	2418	1916	1414	....	....
14000	5497	4769	3986	3234	2585	1991	1578	1165	....	....
12000	4712	4088	3416	2772	2215	1707	1353	998	....	....
10000	3926	3407	2847	2310	1846	1422	1127	830	....	....
8000	3141	2725	2277	1848	1477	1138	913	702	....	....
7000	2748	2384	1993	1617	1292	1001	826	635	....	....
6000	2356	2044	1708	1386	1115	892	735	564	....	....
5000	1963	1703	1423	1173	972	777	639	489	....	....
4000	1570	1371	1182	992	810	654	536	410	....	....
3600	1418	1258	1092	915	747	602	493	376	....	....
3000	1237	1096	950	795	648	521	405	325	....	....
2400	1043	923	793	667	542	436	338	270	....	....
1750	774	720	617	518	420	332	260	207	....	....
1150	553	487	438	364	296	233	182	144	....	....

Sizes No. N804C & NM804C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000			6404	5197	4153	3199	2521	....	....	....
17000		6514	5443	4417	3530	2719	2143	....	....	....
14000	6183	5364	4483	3638	2907	2239	1764	....	....	....
12000	5299	4598	3842	3118	2492	1919	1512	....	....	....
10000	4416	3831	3202	2598	2076	1599	1260	....	....	....
8000	3533	3065	2561	2079	1661	1279	1021	....	....	....
7000	3091	2682	2241	1819	1453	1126	924	....	....	....
6000	2649	2299	1921	1559	1254	1003	822	....	....	....
5000	2208	1915	1601	1320	1093	874	714	....	....	....
4000	1766	1541	1330	1115	911	735	600	....	....	....
3600	1594	1415	1228	1029	840	677	552	....	....	....
3000	1391	1233	1068	894	728	586	455	....	....	....
2400	1173	1038	892	750	610	490	380	....	....	....
1750	877	810	694	582	472	373	292	....	....	....
1150	626	551	493	409	333	262	205	....	....	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N1000C & NM1000C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000					5538	4266	3250	2530	1835	....
17000				5920	4707	3626	2762	2150	1560	....
14000		6812	5692	4875	3876	2896	2275	1771	1285	....
12000	6717	5839	4879	4179	3322	2560	1950	1518	1101	....
10000	5597	4865	4066	3482	2769	2133	1625	1265	917	....
8000	4478	3892	3252	2786	2215	1706	1300	1010	765	....
7000	3918	3406	2846	2437	1938	1493	1137	941	691	....
6000	3358	2919	2439	2089	1661	1280	1003	771	614	....
5000	2798	2432	2033	1741	1378	1104	874	671	533	....
4000	2239	1946	1626	1415	1159	932	728	564	447	....
3600	2015	1751	1475	1239	1070	859	671	519	411	....
3000	1679	1479	1287	1079	930	746	581	449	355	....
2400	1410	1250	1085	908	781	625	486	374	295	....
1750	1108	979	841	708	575	481	376	288	215	....
1150	749	701	600	499	408	340	264	200	150	....

Sizes No. N1002C & NM1002C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000					6506	5013	3818	2948	2138	....
17000				6955	5530	4261	3246	2505	1818	....
14000		8076	6749	5728	4554	3509	2673	2063	1497	....
12000	7963	6922	5785	4909	3903	3007	2291	1768	1283	....
10000	6636	5769	4821	4091	3253	2506	1909	1474	1069	....
8000	5309	4615	3856	3273	2602	2005	1527	1177	891	....
7000	4645	4038	3374	2864	2277	1754	1336	1065	806	....
6000	3981	3461	2892	2454	1951	1503	1179	906	716	....
5000	3318	2884	2410	2045	1619	1297	1027	788	621	....
4000	2654	2307	1928	1663	1361	1095	855	663	521	....
3600	2389	2076	1749	1469	1257	1010	788	610	479	....
3000	1990	1754	1526	1279	1092	876	683	527	413	....
2400	1672	1482	1287	1077	918	735	571	440	344	....
1750	1313	1161	997	839	682	566	441	339	253	....
1150	897	832	712	592	484	399	310	235	176	....

Sizes No. N1004C & NM1004C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000					7422	5718	4356	3343	....	....
17000				7935	6309	4861	3703	2841	....	....
14000		9273	7749	6534	5195	4003	3049	2340	....	....
12000	9144	7948	6642	5601	4453	3431	2613	2005	....	....
10000	7620	6624	5535	4667	3711	2859	2178	1671	....	....
8000	6096	5299	4428	3734	2969	2287	1742	1334	....	....
7000	5334	4636	3874	3267	2597	2001	1524	1208	....	....
6000	4572	3974	3321	2800	2226	1715	1345	1034	....	....
5000	3810	3312	2767	2333	1848	1480	1172	899	....	....
4000	3048	2649	2214	1897	1553	1249	976	756	....	....
3600	2743	2384	2009	1687	1434	1152	899	696	....	....
3000	2286	2014	1752	1469	1246	1000	779	601	....	....
2400	1920	1701	1478	1236	1047	838	651	502	....	....
1750	1508	1333	1144	964	783	645	503	387	....	....
1150	1037	955	817	679	555	456	354	268	....	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N1200C & NM1200C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000						7253	5499	4060	2978	2224
17000					7654	6165	4674	3451	2531	1890
14000				7913	6303	5077	3849	2842	2084	1557
12000			8356	6782	5403	4351	3299	2436	1786	1334
10000	9207	7933	6963	5652	4502	3626	2749	2030	1489	1112
8000	7366	6346	5571	4521	3602	2901	2199	1624	1185	926
7000	6445	5553	4874	3956	3151	2538	1924	1421	1073	837
6000	5524	4760	4178	3391	2701	2175	1649	1248	955	744
5000	4603	3966	3481	2826	2251	1813	1415	1088	831	645
4000	3683	3173	2785	2260	1812	1516	1195	917	698	541
3600	3314	2856	2507	2027	1675	1339	1095	845	643	498
3000	2762	2380	2106	1769	1459	1165	950	732	556	429
2400	2216	1967	1695	1493	1218	979	797	612	464	342
1750	1747	1547	1330	1168	950	761	618	473	353	263
1150	1245	1113	954	794	677	535	418	331	248	183

Sizes No. N1202C & NM1202C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000						8274	6273	4631	3397	....
17000					8788	7033	5332	3936	2887	....
14000				9085	7237	5792	4391	3242	2378	....
12000			9595	7787	6203	4964	3764	2779	2038	....
10000	10646	9173	7995	6489	5169	4137	3136	2315	1698	....
8000	8517	7338	6396	5191	4135	3309	2509	1852	1352	....
7000	7452	6421	5597	4542	3618	2896	2195	1621	1224	....
6000	6388	5503	4797	3893	3101	2482	1882	1424	1090	....
5000	5323	4586	3997	3244	2584	2068	1614	1241	948	....
4000	4258	3669	3198	2595	2081	1730	1363	1046	797	....
3600	3832	3302	2878	2327	1923	1538	1249	964	733	....
3000	3194	2751	2418	2031	1675	1337	1084	835	634	....
2400	2563	2274	1960	1714	1399	1124	909	699	529	....
1750	2020	1788	1537	1341	1091	874	705	540	403	....
1150	1439	1287	1103	918	777	615	480	378	283	....

Sizes No. N1204C & NM1204C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
20000						9240	7006	5172	....	....
17000					9861	7854	5955	4396	....	....
14000				10195	8121	6468	4904	3620	....	....
12000			10766	8738	6961	5544	4203	3103	....	....
10000	12007	10345	8971	7282	5801	4620	3503	2586	....	....
8000	9605	8276	7177	5825	4640	3696	2802	2068	....	....
7000	8405	7241	6280	5097	4060	3234	2452	1810	....	....
6000	7204	6207	5383	4369	3480	2772	2101	1591	....	....
5000	6003	5172	4485	3641	2900	2310	1803	1386	....	....
4000	4802	4138	3588	2912	2335	1932	1522	1168	....	....
3600	4322	3724	3229	2611	2158	1726	1395	1076	....	....
3000	3602	3103	2713	2279	1880	1501	1211	932	....	....
2400	2890	2565	2210	1923	1570	1261	1016	780	....	....
1750	2278	2017	1734	1505	1225	981	788	603	....	....
1150	1623	1452	1244	1036	872	690	538	422	....	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N1400C & NM1400C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
17000						9227	7009	5408	3924	2834
14000					9864	7599	5772	4454	3231	2334
12000				10265	8454	6513	4947	3817	2769	2000
10000		12461	10539	8554	7045	5428	4123	3181	2308	1667
8000	11570	9968	8431	6843	5636	4342	3298	2545	1846	1335
7000	10124	8722	7377	5988	4932	3799	2886	2227	1615	1208
6000	8678	7476	6323	5132	4227	3256	2473	1908	1426	1075
5000	7231	6230	5269	4277	3522	2714	2061	1642	1242	935
4000	5785	4984	4215	3421	2818	2184	1727	1378	1047	786
3600	5206	4486	3794	3079	2536	2018	1594	1271	964	723
3000	4339	3738	3161	2575	2199	1758	1386	1103	835	625
2400	3471	2990	2563	2178	1780	1481	1165	925	699	522
1750	2644	2343	2017	1709	1393	1156	898	690	540	397
1150	1916	1693	1453	1211	996	789	637	488	377	278
870	1538	1356	1161	966	792	626	504	385	297	219

Sizes No. N1402C & NM1402C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
17000						10354	7864	6040	4382	....
14000					11068	8527	6476	4974	3608	....
12000				11577	9487	7308	5551	4263	3093	....
10000		14053	11886	9647	7905	6090	4626	3553	2577	....
8000	13049	11243	9509	7718	6324	4872	3701	2842	2062	....
7000	11418	9837	8320	6753	5534	4263	3238	2487	1804	....
6000	9787	8432	7131	5788	4743	3654	2775	2131	1592	....
5000	8156	7026	5943	4823	3952	3045	2313	1834	1387	....
4000	6524	5621	4754	3859	3162	2450	1937	1539	1169	....
3600	5872	5059	4279	3473	2846	2265	1789	1419	1077	....
3000	4893	4216	3565	2904	2468	1973	1556	1232	933	....
2400	3914	3372	2891	2456	2008	1662	1307	1033	780	....
1750	2982	2643	2275	1928	1571	1297	1008	775	603	....
1150	2161	1910	1638	1366	1123	890	715	547	422	....
870	1735	1530	1309	1089	894	706	566	432	332	....

Sizes No. N1404C & NM1404C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
17000						11421	8675	6639	....	....
14000					12209	9406	7144	5467	....	....
12000				12819	10465	8062	6124	4686	....	....
10000		15562	13162	10683	8720	6718	5103	3905	....	....
8000	14450	12449	10529	8546	6976	5375	4082	3124	....	....
7000	12643	10893	9213	7478	6104	4703	3572	2733	....	....
6000	10837	9337	7897	6409	5232	4031	3062	2343	....	....
5000	9031	7781	6581	5341	4360	3359	2551	2016	....	....
4000	7225	6224	5264	4273	3488	2703	2137	1692	....	....
3600	6502	5602	4738	3845	3139	2498	1973	1560	....	....
3000	5418	4668	3948	3216	2723	2177	1716	1354	....	....
2400	4335	3734	3201	2720	2223	1833	1442	1135	....	....
1750	3302	2927	2519	2135	1740	1430	1112	854	....	....
1150	2393	2115	1814	1513	1244	985	789	604	....	....
870	1921	1694	1450	1206	990	782	625	477	....	....

Sizes No. N1600C & NM1600C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000						10826	8459	6297	4751	3394
12000					12045	9279	7251	5397	4072	2909
10000			15476	12560	10038	7733	6042	4498	3393	2424
8000		14816	12381	10048	8030	6186	4834	3598	2714	1939
7000	13990	12964	10833	8792	7026	5413	4229	3148	2375	1699
6000	11991	11112	9286	7536	6022	4639	3625	2698	2026	1514
5000	9993	9260	7738	6280	5019	3866	3021	2244	1768	1319
4000	7994	7408	6190	5024	4015	3093	2447	1899	1483	1110
3600	7195	6667	5571	4521	3613	2780	2262	1753	1368	1022
3000	5995	5556	4643	3768	3030	2425	1970	1524	1187	885
2400	4796	4444	3714	3094	2563	2047	1659	1280	994	740
1750	3533	3134	2906	2435	1986	1601	1293	986	770	572
1150	2570	2273	1952	1753	1425	1144	887	699	526	399
870	2067	1825	1563	1401	1136	899	704	553	415	314

Ratings for intermediate ratios and speeds may be found by direct interpolation.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N1602C & NM1602C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000						11988	9331	6946	5222	....
12000					13338	10275	7998	5954	4476	....
10000			17137	13908	11115	8562	6665	4961	3730	....
8000		16406	13710	11126	8892	6850	5332	3969	2984	....
7000	15624	14355	11996	9735	7780	5994	4665	3473	2611	....
6000	13392	12304	10282	8345	6669	5137	3999	2977	2228	....
5000	11160	10254	8568	6954	5557	4281	3332	2476	1944	....
4000	8928	8203	6855	5563	4446	3425	2700	2095	1631	....
3600	8035	7382	6169	5007	4001	3078	2495	1934	1503	....
3000	6696	6152	5141	4172	3355	2686	2173	1681	1304	....
2400	5356	4921	4113	3426	2838	2267	1830	1412	1093	....
1750	3946	3500	3218	2696	2200	1773	1427	1088	847	....
1150	2870	2538	2179	1942	1578	1267	982	771	580	....
870	2309	2038	1746	1552	1258	995	779	610	458	....

Sizes No. N1604C & NM1604C

Standard Ratio

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000						13092	10162	7564	5671	....
12000					14567	11222	8710	6483	4861	....
10000			18716	15189	12139	9351	7258	5403	4051	....
8000		17918	14973	12151	9711	7481	5806	4322	3240	....
7000	17173	15678	13101	10632	8497	6546	5081	3782	2835	....
6000	14720	13438	11230	9113	7283	5611	4355	3241	2419	....
5000	12267	11198	9358	7594	6069	4675	3629	2696	2111	....
4000	9813	8959	7486	6075	4855	3740	2940	2281	1771	....
3600	8832	8063	6738	5468	4370	3362	2717	2106	1633	....
3000	7360	6719	5615	4556	3665	2933	2366	1830	1417	....
2400	5888	5375	4492	3742	3099	2475	1992	1538	1187	....
1750	4337	3848	3514	2945	2402	1936	1554	1185	920	....
1150	3155	2790	2396	2121	1724	1384	1073	840	632	....
870	2538	2240	1919	1695	1374	1087	851	665	499	....

Sizes No. N1800C & NM1800C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000							11513	8783	6613	4755
12000						13101	9868	7528	5669	4075
10000				17737	14010	10917	8223	6273	4724	3396
8000			16404	14190	11208	8734	6579	5018	3779	2717
7000		17180	14354	12416	9807	7642	5756	4391	3306	2377
6000	....	14725	12303	10642	8406	6550	4934	3764	2834	2059
5000	....	12271	10252	8868	7005	5458	4111	3136	2390	1796
4000	....	9817	8202	7095	5604	4367	3289	2572	1962	1514
3600	....	8835	7382	6385	5043	3930	2989	2377	1811	1387
3000	....	7362	6151	5321	4203	3325	2606	2069	1573	1203
2400	....	5890	4921	4241	3475	2778	2198	1741	1321	1007
1750	....	4338	3741	3137	2733	2178	1718	1356	1025	779
1150	....	3155	2712	2266	1843	1561	1227	933	720	533
870	....	2538	2177	1815	1473	1244	963	739	569	421

Sizes No. N1802C & NM1802C

Standard Ratios

H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000							12574	9564	7182	....
12000						14308	10778	8198	6156	....
10000				19371	15301	11923	8981	6831	5130	....
8000			18031	15497	12241	9539	7185	5465	4104	....
7000	....	18883	15777	13560	10711	8346	6287	4782	3591	....
6000	....	16186	13523	11623	9180	7154	5389	4099	3078	....
5000	....	13488	11269	9685	7650	5961	4490	3415	2596	....
4000	....	10790	9015	7748	6120	4769	3592	2801	2137	....
3600	....	9711	8114	6973	5508	4292	3264	2588	1972	....
3000	....	8093	6761	5811	4590	3632	2846	2253	1713	....
2400	....	6474	5409	4631	3795	3034	2401	1895	1438	....
1750	....	4768	4112	3448	2985	2379	1876	1477	1117	....
1150	....	3468	2981	2491	2026	1705	1340	1019	784	....
870	....	2790	2393	1995	1619	1359	1052	808	620	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N & NM

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units. Gray shaded area—Type "N" and Type "NM" units.

Sizes No. N1804C & NM1804C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
14000							13588	10313	7729	....
12000						15463	11647	8840	6624	....
10000				20934	16536	12885	9706	7366	5520	....
8000			19582	16747	13228	10308	7765	5893	4416	....
7000		20508	17134	14654	11575	9020	6794	5156	3864	....
6000		17578	14686	12560	9921	7731	5823	4420	3312	....
5000	....	14648	12239	10467	8268	6442	4853	3683	2793	....
4000	....	11719	9791	8373	6614	5154	3882	3021	2304	....
3600	....	10547	8812	7536	5953	4638	3527	2791	2127	....
3000	....	8789	7343	6280	4960	3925	3076	2429	1847	....
2400	....	7031	5874	5005	4101	3279	2594	2044	1551	....
1750	....	5178	4466	3745	3225	2571	2028	1592	1204	....
1150	....	3766	3238	2705	2201	1843	1448	1101	845	....
870	....	3030	2599	2167	1758	1469	1137	873	668	....

Sizes No. N2100C & NM2100C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							14643	10934	8170	6041
10000					19867	16201	12202	9112	6809	5034
8000				20126	15894	12961	9762	7289	5447	4027
7000			21696	17610	13907	11341	8541	6378	4766	3524
6000		21573	18597	15094	11920	9721	7321	5467	4085	3020
5000		17978	15497	12578	9933	8100	6101	4556	3404	2495
4000	....	14382	12398	10063	7947	6480	4881	3644	2805	2109
3600	....	12944	11158	9056	7152	5832	4393	3322	2591	1946
3000	....	10786	9298	7547	5960	4860	3722	2896	2254	1690
2400	....	8629	7438	6037	4768	4017	3146	2442	1897	1418
1750	....	6292	5440	4569	3738	2983	2466	1909	1433	1101
1150	....	4459	3838	3314	2701	2147	1768	1346	1019	772
870	....	3597	3089	2578	2163	1715	1409	1070	807	611

Sizes No. N2102C & NM2102C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							15824	11817	8810	....
10000					21576	17509	13187	9847	7342	....
8000				21857	17261	14007	10549	7878	5873	....
7000			23563	19125	15103	12256	9231	6893	5139	....
6000		23493	20197	16393	12945	10505	7912	5908	4405	....
5000		19577	16830	13660	10788	8754	6593	4923	3671	....
4000	....	15662	13464	10928	8630	7003	5274	3939	3024	....
3600	....	14096	12118	9835	7767	6303	4747	3590	2793	....
3000	....	11746	10098	8196	6472	5252	4022	3130	2431	....
2400	....	9397	8078	6557	5178	4341	3400	2639	2045	....
1750	....	6852	5908	4962	4059	3239	2665	2063	1549	....
1150	....	4856	4179	3599	2933	2332	1910	1455	1101	....
870	....	3917	3364	2808	2349	1863	1522	1156	873	....

Sizes No. N2104C & NM2104C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							16963	12667	9428	....
10000					23217	18769	14136	10556	7856	....
8000				23519	18573	15015	11309	8445	6285	....
7000			25354	20579	16252	13138	9895	7389	5499	....
6000		25332	21732	17639	13930	11261	8481	6333	4714	....
5000		21110	18110	14699	11608	9384	7068	5278	3928	....
4000	....	16888	14488	11759	9286	7507	5654	4222	3236	....
3600	....	15199	13039	10583	8358	6756	5089	3848	2989	....
3000	....	12666	10866	8819	6965	5630	4312	3355	2602	....
2400	....	10133	8693	7055	5572	4653	3644	2829	2189	....
1750	....	7388	6357	5340	4368	3486	2857	2211	1661	....
1150	....	5236	4507	3873	3156	2509	2048	1559	1180	....
870	....	4223	3627	3028	2528	2004	1632	1239	935	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units.

Size No. N2400C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							19285	14238	10444	7685
10000						20164	16071	11865	8704	6404
8000					20940	16131	12857	9492	6963	5123
7000				22492	18323	14115	11250	8305	6092	4483
6000			23752	19279	15705	12098	9642	7119	5222	3842
5000			19793	16065	13087	10082	8035	5932	4352	3202
4000	....	....	15835	12852	10470	8065	6428	4746	3465	2667
3600	....	....	14251	11567	9423	7259	5785	4271	3204	2462
3000	....	....	11876	9639	7852	6049	4821	3649	2792	2142
2400	....	....	9501	7711	6282	4833	4011	3083	2353	1801
1750	....	....	6927	5642	4767	3811	2978	2415	1838	1401
1150	....	....	4740	4107	3351	2752	2142	1730	1295	966
870	....	....	3824	3195	2690	2204	1711	1378	1029	765

Size No. N2402C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							20841	15387	11287	8287
10000						21899	17368	12822	9406	6905
8000					22741	17519	13894	10258	7525	5524
7000				24493	19899	15329	12157	8976	6584	4834
6000			25865	20994	17056	13139	10420	7693	5643	4143
5000			21554	17495	14213	10949	8684	6411	4703	3452
4000			17243	13996	11370	8759	6947	5129	3745	2875
3600	....	....	15519	12596	10233	7883	6252	4616	3462	2655
3000	....	....	12932	10497	8528	6569	5210	3944	3018	2310
2400	....	....	10346	8397	6822	5249	4334	3332	2543	1942
1750	....	....	7544	6144	5177	4139	3234	2610	1986	1511
1150	....	....	5177	4472	3649	2989	2326	1869	1400	1043
870	....	....	4176	3490	2930	2394	1858	1489	1112	826

Size No. N2404C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
12000							22342	16494	12100	8868
10000						23564	18618	13745	10083	7390
8000					24471	18851	14894	10996	8066	5912
7000				26410	21412	16495	13032	9622	7058	5173
6000			27890	22637	18353	14138	11171	8247	6050	4434
5000			23242	18864	15294	11782	9309	6872	5041	3695
4000	....	....	18593	15091	12235	9425	7447	5498	4015	3077
3600	....	....	16734	13582	11012	8483	6702	4948	3712	2841
3000	....	....	13945	11318	9176	7069	5585	4228	3235	2472
2400	....	....	11156	9055	7341	5648	4646	3572	2727	2078
1750	....	....	8134	6626	5571	4454	3480	2798	2129	1617
1150	....	....	5594	4823	3935	3217	2503	2004	1500	1119
870	....	....	4513	3771	3159	2576	1999	1596	1192	886

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units.

Size No. N3000C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								18540	14189	10247
8000						25904	20089	14831	11351	8197
7000					28512	22666	17578	12977	9932	7172
6000				30940	24439	19428	15067	11123	8513	6148
5000				25784	20366	16190	12555	9269	7094	5123
4000	....	....	....	20627	16293	12952	10044	7415	5675	4098
3600	....	....	....	18564	14663	11656	9040	6674	5108	3728
3000	....	....	....	15470	12219	9714	7533	5561	4308	3251
2400	....	....	....	12376	9775	7771	6026	4562	3642	2712
1750	....	....	....	9024	7128	5794	4540	3590	2856	2119
1150	....	....	....	5901	5112	4078	3284	2586	1940	1513
870	....	....	....	4768	4120	3278	2633	2067	1547	1203

Size No. N3002C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								20036	15268	11026
8000						28060	21710	16028	12214	8820
7000					30965	24553	18996	14025	10687	7718
6000				33602	26541	21045	16282	12021	9160	6615
5000				28001	22118	17538	13569	10017	7633	5512
4000	....	....	....	22401	17694	14030	10855	8014	6107	4410
3600	....	....	....	20161	15925	12627	9769	7212	5496	4011
3000	....	....	....	16801	13270	10522	8141	6010	4635	3498
2400	....	....	....	13440	10616	8418	6513	4930	3919	2918
1750	....	....	....	9800	7741	6277	4918	3879	3074	2281
1150	....	....	....	6445	5552	4429	3558	2794	2097	1628
870	....	....	....	5207	4474	3560	2852	2234	1671	1294

Size No. N3004C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								21478	16312	11780
8000						30135	23272	17182	13049	9424
7000					33320	26368	20363	15034	11418	8246
6000				36157	28560	22601	17454	12886	9787	7068
5000				30131	23800	18834	14545	10738	8156	5890
4000	....	....	....	24105	19040	15067	11636	8591	6524	4712
3600	....	....	....	21694	17136	13561	10472	7732	5872	4286
3000	....	....	....	18078	14280	11300	8727	6443	4953	3738
2400	....	....	....	14463	11424	9040	6981	5285	4187	3118
1750	....	....	....	10545	8330	6741	5281	4159	3284	2437
1150	....	....	....	6965	5974	4766	3821	2996	2248	1740
870	....	....	....	5627	4814	3831	3063	2394	1792	1383

Size No. N3006C

	Standard Ratios									
H.S. Shaft R.P.M.	1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								22880	17332	12517
8000						32148	24792	18304	13865	10013
7000					35599	28130	21693	16016	12132	8761
6000				38631	30513	24111	18594	13728	10399	7510
5000				32192	25428	20092	15495	11440	8666	6258
4000	....	....	....	25754	20342	16074	12396	9152	6932	5006
3600	....	....	....	23178	18308	14466	11156	8236	6239	4554
3000	....	....	....	19315	15256	12055	9297	6864	5262	3971
2400	....	....	....	15452	12205	9644	7437	5630	4449	3313
1750	....	....	....	11267	8899	7191	5634	4430	3489	2589
1150	....	....	....	7466	6383	5092	4076	3191	2395	1848
870	....	....	....	6032	5144	4093	3267	2551	1909	1469

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units.

Size No. N3300C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								27000	19583	14627
8000							28558	21600	15667	11702
7000						32324	24988	18899	13708	10239
6000					34356	27707	21418	16199	11750	8776
5000				36256	28630	23089	17848	13499	9791	7313
4000				29005	22904	18471	14279	10799	7833	5851
3600	....	....	....	26104	20614	16624	12851	9719	7050	5265
3000	....	....	....	21753	17178	13853	10709	8099	5875	4533
2400	....	....	....	17403	13742	11082	8567	6484	4911	3828
1750	....	....	....	12689	10020	8065	6492	5112	3859	2998
1150	....	....	....	8586	7025	5874	4586	3603	2774	2050
870	....	....	....	6948	5671	4515	3682	2885	2215	1632

Size No. N3302C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								28688	20808	15507
8000							30382	22950	16646	12405
7000						34435	26584	20081	14565	10854
6000					36707	29515	22786	17212	12484	9303
5000				38736	30589	24596	18988	14343	10403	7753
4000				30989	24471	19677	15191	11475	8323	6202
3600	....	....	....	27890	22024	17709	13671	10327	7490	5582
3000	....	....	....	23241	18353	14757	11393	8606	6242	4806
2400	....	....	....	18593	14682	11806	9114	6890	5218	4058
1750	....	....	....	13557	10706	8592	6907	5432	4100	3178
1150	....	....	....	9173	7506	6257	4886	3833	2948	2178
870	....	....	....	7424	6059	4824	3923	3069	2353	1734

Size No. N3304C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								30350	22013	16375
8000							32174	24280	17611	13100
7000						36504	28152	21244	15409	11462
6000					39002	31289	24130	18209	13208	9824
5000				41158	32502	26074	20108	15174	11006	8187
4000				32927	26001	20859	16087	12139	8805	6549
3600	....	....	....	29634	23401	18773	14478	10925	7924	5894
3000	....	....	....	24695	19501	15644	12065	9104	6604	5075
2400	....	....	....	19756	15601	12515	9652	7289	5521	4286
1750	....	....	....	14405	11375	9108	7314	5747	4338	3356
1150	....	....	....	9747	7975	6633	5179	4059	3119	2305
870	....	....	....	7888	6438	5126	4158	3250	2490	1834

Size No. N3306C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
10000								31996	23207	17237
8000							33947	25597	18566	13789
7000						38548	29703	22397	16245	12065
6000					41261	33041	25460	19197	13924	10341
5000				43543	34384	27534	21216	15997	11603	8618
4000				34834	27508	22027	16973	12798	9282	6894
3600	....	....	....	31351	24757	19824	15276	11518	8354	6205
3000	....	....	....	26125	20631	16520	12730	9598	6962	5342
2400	....	....	....	20900	16504	13216	10184	7684	5820	4511
1750	....	....	....	15240	12034	9618	7717	6059	4573	3532
1150	....	....	....	10311	8437	7005	5469	4283	3288	2430
870	....	....	....	8345	6811	5422	4391	3429	2625	1934

Ratings for intermediate ratios and speeds may be found by direct interpolation.

All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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HORSEPOWER RATING TABLES (Cont'd.)

TYPE N

Rust shaded area—Consult LUFKIN for recommendations. Non-shaded area—Type "N" units.

Size No. N3800C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
8000								34391	25467	18892
7000							39866	30092	22284	16531
6000						43696	34171	25793	19101	14169
5000					47269	36413	28476	21494	15917	11808
4000			56605	45933	37815	29130	22781	17196	12734	9446
3600			50944	41339	34034	26217	20503	15476	11460	8501
3000			42453	34449	28361	21848	17086	12897	9550	7062
2400	....	....	33963	27560	22689	17478	13668	10317	7707	5754
1750	....	....	24764	20095	16544	12745	9996	7867	6073	4518
1150	....	....	16274	13206	11204	8960	7276	5576	4292	3245
870	....	....	12683	10642	8695	7232	5638	4475	3434	2589

Size No. N3802C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
8000								37876	28017	20740
7000							43956	33141	24515	18148
6000						48295	37676	28407	21013	15555
5000					52244	40246	31397	23672	17511	12963
4000			62728	50901	41795	32196	25118	18938	14009	10370
3600			56455	45811	37616	28977	22606	17044	12608	9333
3000			47046	38176	31346	24147	18838	14203	10506	7753
2400	....	....	37637	30541	25077	19318	15071	11363	8478	6330
1750	....	....	27443	22269	18285	14086	11021	8665	6681	4971
1150	....	....	18034	14634	12383	9903	8023	6148	4727	3570
870	....	....	14055	11793	9635	7993	6231	4934	3782	2849

Size No. N3804C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
8000								41368	30571	....
7000							48055	36197	26749	....
6000						52906	41190	31026	22928	....
5000					57233	44089	34325	25855	19107	....
4000			68864	55881	45786	35271	27460	20684	15285	....
3600			61978	50293	41208	31744	24714	18615	13757	....
3000			51648	41911	34340	26453	20595	15513	11464	....
2400	....	....	41319	33529	27472	21163	16476	12410	9251	....
1750	....	....	30128	24448	20031	15431	12049	9463	7289	....
1150	....	....	19799	16066	13566	10849	8771	6721	5162	....
870	....	....	15430	12947	10578	8756	6826	5394	4131	....

Size No. N3806C

H.S. Shaft R.P.M.	Standard Ratios 1.22	1.50	1.84	2.25	2.75	3.37	4.13	5.06	6.20	7.59
8000								44859	33124	....
7000							52155	39252	28984	....
6000						57518	44704	33644	24843	....
5000					62222	47932	37253	28037	20703	....
4000			75001	60860	49777	38345	29803	22430	16562	....
3600			67501	54774	44800	34511	26822	20187	14906	....
3000			56251	45645	37333	28759	22352	16822	12422	....
2400	....	....	45000	36516	29866	23007	17882	13458	10024	....
1750	....	....	32813	26626	21778	16776	13077	10262	7898	....
1150	....	....	21563	17497	14748	11795	9519	7295	5598	....
870	....	....	16805	14100	11520	9519	7422	5855	4480	....

Ratings for intermediate ratios and speeds may be found by direct interpolation.

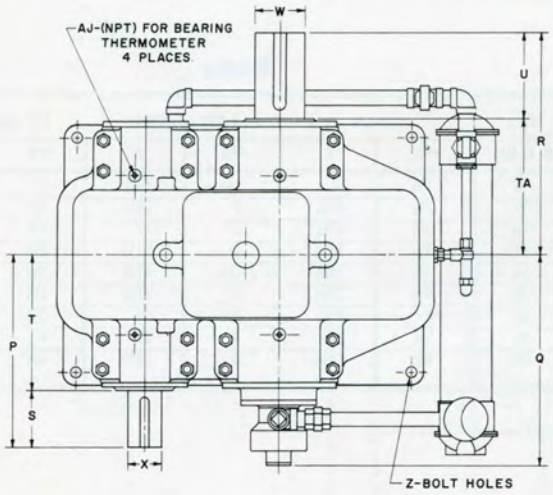
All units may be operated at speeds lower than the minimum shown. The selection of a reducer for a lower speed may be accomplished by multiplying the desired horsepower by the lowest RPM shown and dividing by the desired RPM. The result will be the equivalent horsepower at lowest RPM shown which can be found in the above tables.

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GENERAL DIMENSIONS

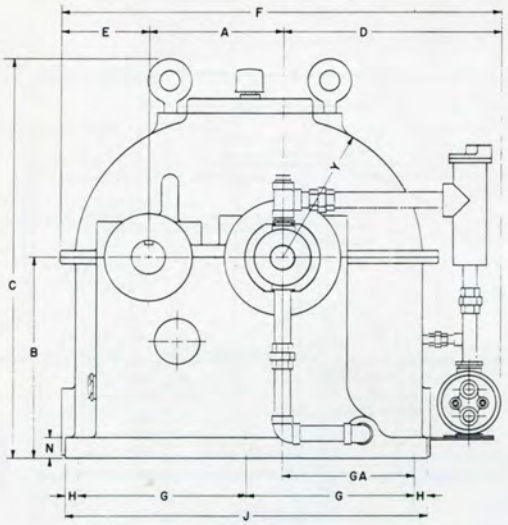
TYPE N & NM

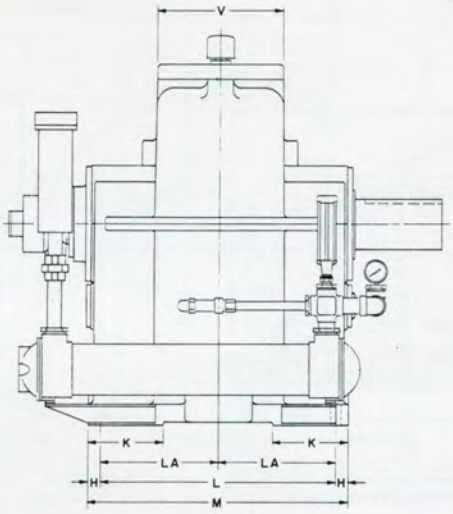
WET SUMP UNITS



Ratio

Size No. N & NM	† 4.134:1		4.134—5.062:1		†† 5.062:1	
	**X	P	**X	P	**X	P
6	1⅞	11	1½	10¾	1	10¾
8	2½	14¼	2	13¾	1½	13¼
10	3½	17¾	3	17	1⅞	16
12	3½	18¼	3	17½	2¼	16¾
14	3½	19¾	3½	19¾	2¾	18¾
16	4½	23½	4	22½	3¼	21½
18	5	24½	4½	24	3½	22
21	5½	26	5	25	4	23½
24	6½	28½	6	28½	4¾	26





Size No. N or NM	A	B	C	D	E	F	G	GA	H	J	K	L	LA	M	N	Q	R	T	TA	V	W	Y	AJ	Slow Speed Shaft Keyway	Z Bolt Holes	Weight
6	6	12½	22¾	11½	5	22½	15½	5½	1	17½	4	12	6	14	1½	16	13	7⅞	7⅝	9½	3	6	½	¾ x ⅜ x 4½	4-⅞	610
8	8	14	26⅞	16½	6½	31	21	7¾	1¼	23½	5	16½	8¼	19	1¾	18¼	16½	10⅜	10⅛	10¾	3½	8½	½	⅞ x 7/16 x 5¼	4-1⅛	1,040
10	10	17	32⅝	18½	8	36½	26½	9¾	1¼	29	6½	20½	10¼	23	2	20½	20	12½	12¼	11¾	4½	10½	½	1 x ½ x 6½	4-1⅛	1,790
12	12	20	37	20½	8	40½	30	11½	1½	33	7	21	10½	24	2	21½	21¼	13	12¾	12½	5	12½	½	1¼ x 7/16 x 7½	4-1⅛	2,410
14	14	22	41¼	22½	9	45½	35	13½	1½	38	7½	24	12	27	2¼	22⅝	24	14½	14¼	13½	5½	14½	½	1¼ x 7/16 x 8	4-1⅜	3,400
16	16	24	47⅜	25	10½	51½	20	15¾	1½	43	9	28	14	31	2½	24¾	27¼	16½	16⅜	15	6	16⅝	½	1½ x ½ x 9½	6-1⅜	4,400
18	18	26	50⅞	27¼	10½	55¾	22	17¼	1½	47	9	29	14½	32	2½	25⅛	28	17	16⅞	16	6½	18⅛	½	1½ x ½ x 9½	6-1⅜	5,400
21	21	28	55⅛	30	12	63	24½	19¼	2	53	9	29	14½	33	2¾	26	29¾	17⅝	17⅜	16¾	7	20⅝	½	1¾ x ⅝ x 11¼	6-1⅝	6,650
24	24	30	61⅜	34	13	71	29¼	23½	2	62½	10	32	12*	36	3	27½	31	19	18⅞	18½	8	24¾	½	2 x ¾ x 10¾	6-1⅝	10,000

Type NM Units are not available in size 24.

For units having four foundation bolts the dimension under G is the distance between bolts.

*N24 has center holes spaced 16".

All dimensions are in inches.

**For Shaft Keyways, see Table of Standard Keyways Page 23.

† Indicates ratio less than or equal to ratio shown

†† Indicates ratio greater than or equal to ratio shown

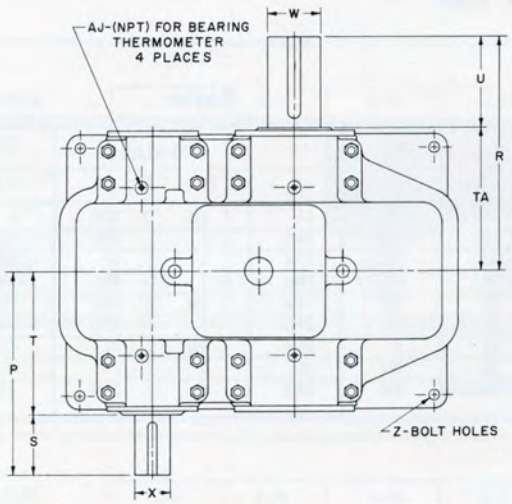
Above dimensions are not to be used for installation.
USE CERTIFIED INSTALLATION PRINT.

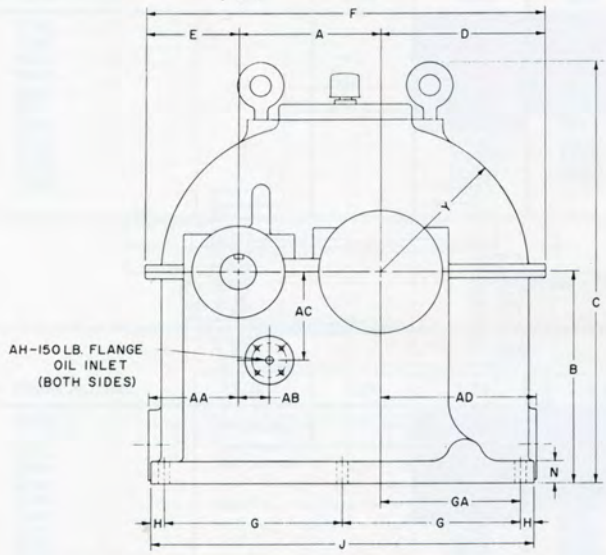
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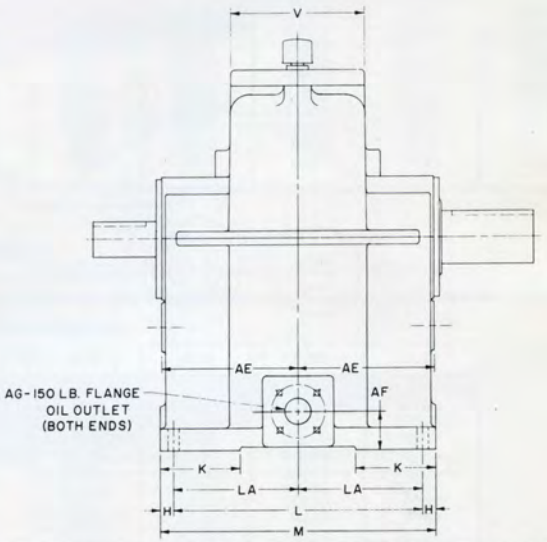
GENERAL DIMENSIONS

TYPE N & NM

DRY SUMP UNITS







Ratio

Size No. N & NM	† 4.134:1		4.134—5.062:1		†† 5.062:1	
	**X	P	**X	P	**X	P
6	1⅞	11	1½	10¾	1	10¾
8	2½	14¼	2	13¾	1½	13¼
10	3½	17¾	3	17	1⅞	16
12	3½	18¼	3	17½	2¼	16¾
14	3½	19¾	3½	19¾	2¾	18¾
16	4½	23½	4	22½	3¼	21½
18	5	24½	4½	24	3½	22
21	5½	26	5	25	4	23½
24	6½	28½	6	28½	4¾	26

Size No. N or NM	A	B	C	D	E	F	G	GA	H	J	K	L	LA	M	N	R	T	TA	V	W	Y	AA	AB	AC	AD	AE	AF	AG	AH	AJ	Slow Speed Shaft Keyway	Z Bolt Holes	Wt.
6	6	12½	22¾	7¼	5	18¼	15½	5½	1	17½	4	12	6	14	1½	13	7⅞	7⅝	9½	3	6	5 3/16	1¼	5½	6 1 1/16	6¾	3½	2	¾	½	¾ x ⅜ x 4½	4-⅞	575
8	8	14	26⅞	10	6½	24½	21	7¾	1¼	23½	5	16½	8¼	19	1¾	16½	10⅜	10⅛	10¾	3½	8½	6 11/16	1½	5½	9 3/16	9¼	3⅝	2	¾	½	⅞ x 7/16 x 5¼	4-1⅛	950
10	10	17	32⅝	12	8	30	26½	9¾	1¼	29	6½	20½	10¼	23	2	20	12½	12¼	11¾	4½	10½	8¼	2¼	7	11¼	11¼	4⅜	3	1	½	1 x ½ x 6½	4-1⅛	1,700
12	12	20	37	14	8	34	30	11½	1½	33	7	21	10½	24	2	21¼	13	12¾	12½	5	12½	8¼	2½	9	13¼	11¾	4⅜	3	1	½	1¼ x 7/16 x 7½	4-1⅜	2,300
14	14	22	41¼	16	9	39	35	13½	1½	38	7½	24	12	27	2¼	24	14½	14¼	13½	5½	14½	9¼	3	10	15¼	13¼	4½	3	1	½	1¼ x 7/16 x 8	4-1⅜	3,200
16	16	24	47⅞	18½	10½	45	20	15¾	1½	43	9	28	14	31	2½	27¼	16½	16⅜	15	6	16⅝	10	3½	10	17½	15¼	4⅜	3	1½	½	1½ x ½ x 9½	6-1⅜	4,200
18	18	26	50⅞	20	10½	48½	22	17¼	1½	47	9	29	14½	32	2½	28	17	16⅞	16	6½	18⅛	10½	4	11½	19	15¾	4⅜	3	1½	½	1½ x ½ x 9½	6-1⅜	5,150
21	21	28	55⅛	22½	12	55½	24½	19¼	2	53	9	29	14½	33	2¾	29¾	17⅞	17⅜	16¾	7	20⅜	11	2	10	21½	16¼	5¼	4	1½	½	1¾ x ⅝ x 11¼	6-1⅜	6,400
24	24	30	61⅜	27	13	64	29¼	23½	2	62½	10	32	12*	36	3	31	19	18⅞	18½	8	24¾	13⅜	2½	14	25⅞	17¾	5½	4	1½	½	2 x ¾ x 10¾	6-1⅝	9,700

Type NM Units are not available in size 24.

For units having four foundation bolts the dimension under G is the distance between bolts.

*N24 has center holes spaced 16".

All dimensions are in inches.

**For Shaft Keyways, see Table of Standard Keyways Page 23.

Above dimensions are not to be used for installation. USE CERTIFIED INSTALLATION PRINT.

† Indicates ratio less than or equal to ratio shown

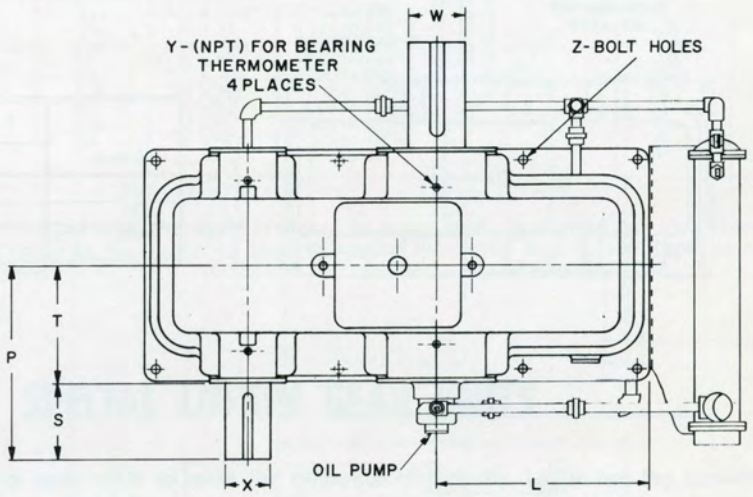
†† Indicates ratio greater than or equal to ratio shown

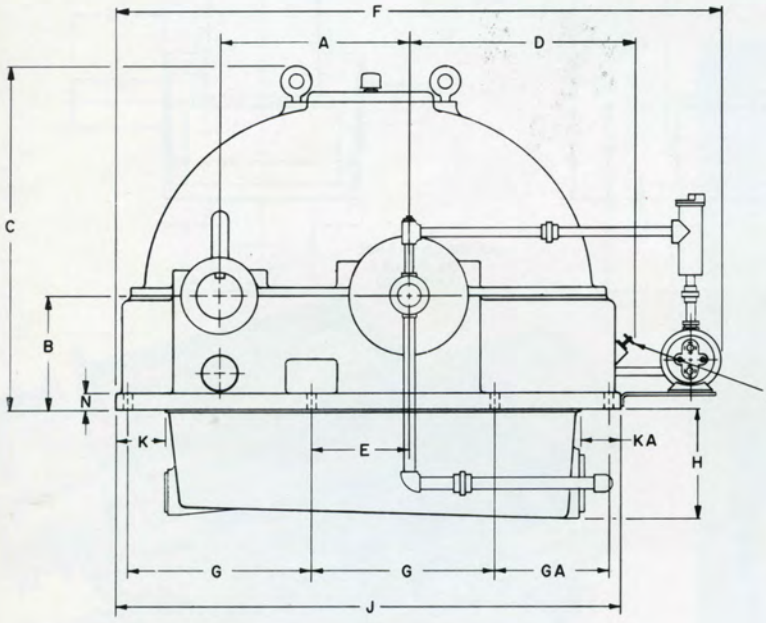
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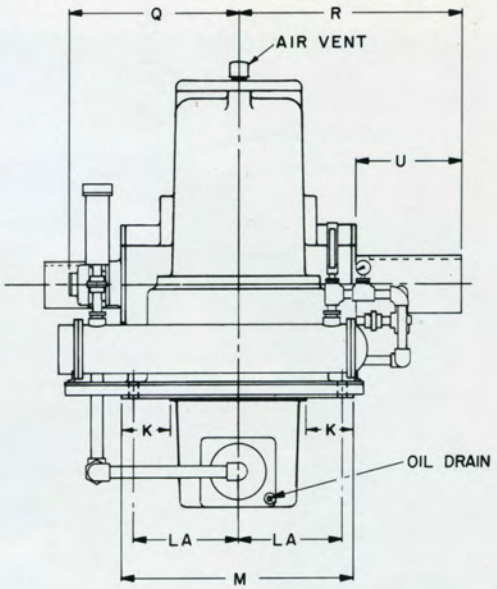
GENERAL DIMENSIONS

LARGE TYPE N

WET SUMP UNITS







Unit Size	A	B	C	D	E	F	G	GA	H	J	K	KA	L	LA	M	N	P	Q	R	S	T	U	W	Ratio † 4.134:1 *X	Ratio 4.134—5.062:1 *X	Ratio †† 5.062:1 *X	Y	Slow Speed Shaft Keyway	Z Bolt Holes	Weight
N30	30	20	57½	38	15	92½	30	19	18	83	8½	7	36	16½	37	3	30½	28½	35½	11¼	19¼	15⅜	9	7½	6½	6	½	2½ x ⅜ x 14½	8-1⅝	15,000
N33	33	20	60¼	39½	17	98	32	20	19	88	8½	7	37	18¼	40½	3	34	31¼	39	13	21	17⅝	10	8½	7½	6½	½	2½ x ⅜ x 16½	8-1⅝	20,300
N38	38	24	67	44	20	111	37¼	22	20	101	8½	7	41½	22¼	49	3¼	41	34½	45½	15⅝	25⅜	19⅜	11	9½	8½	7½	½	3 x 1 x 18¼	8-1⅝	24,300

*For Shaft Keyways, See Table Of Standard Keyways, Page 23.

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† Indicates ratio less than or equal to ratio shown

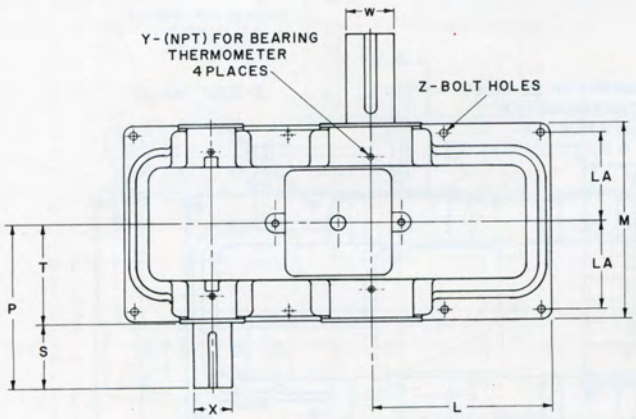
†† Indicates ratio greater than or equal to ratio shown

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GENERAL DIMENSIONS

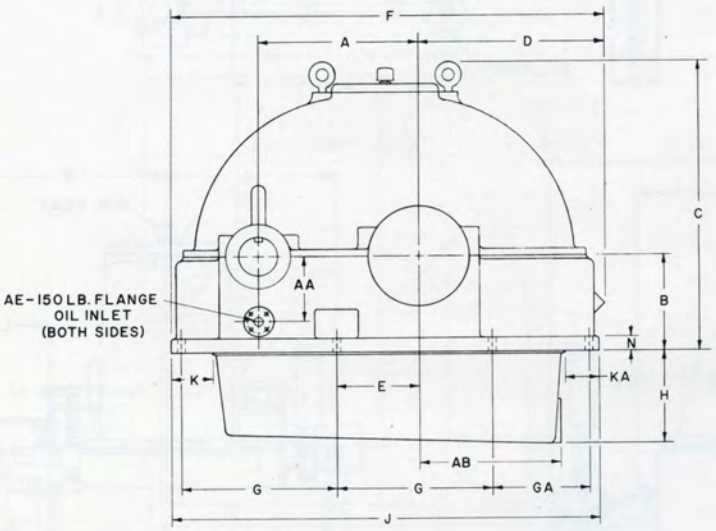
LARGE TYPE N

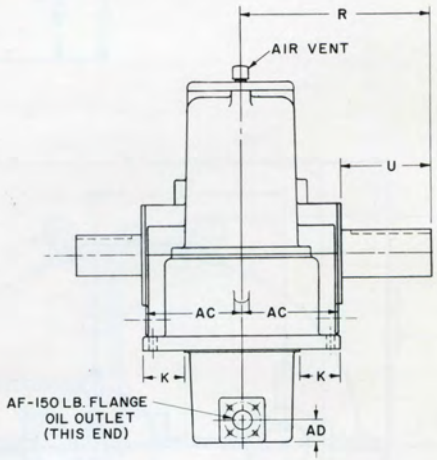
DRY SUMP UNITS



Ratio

Unit Size	† 4.134:1 *X	4.134—5.062:1 *X	†† 5.062:1 *X
N30	7½	6½	6
N33	8½	7½	6½
N38	9½	8½	7½





Unit Size	A	B	C	D	E	F	G	GA	H	J	K	KA	L	LA	M	N	P	R	S	T	U	W	Y	AA	AB	AC	AD	AE	AF	Slow Speed Shaft Keyway	Z Bolt Holes	Weight
N30	30	20	57½	38	15	83½	30	19	18	83	8½	7	36	16½	37	3	30½	35½	11¼	19¼	15⅞	9	½	13½	28¼	18	4⅝	2	4	2½ x ⅜ x 14½	8-1⅛	14,700
N33	33	20	60¼	39½	17	89	32	20	19	88	8½	7	37	18¼	40½	3	34	39	13	21	17⅞	10	½	13½	28¾	19¾	4⅝	2	4	2½ x ⅜ x 16½	8-1⅛	20,000
N38	38	24	67	44	20	102	37¼	22	20	101	8½	7	41½	22¼	49	3¼	41	45½	15⅝	25⅞	19⅞	11	½	17¼	32	24	4⅝	2	4	3 x 1 x 18¼	8-1⅛	24,000

* For Shaft Keyways, See Table Of Standard Keyways, Page 23.

† Indicates ratio less than or equal to ratio shown
†† Indicates ratio greater than or equal to ratio shown

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AGMA STANDARD KEYWAYS

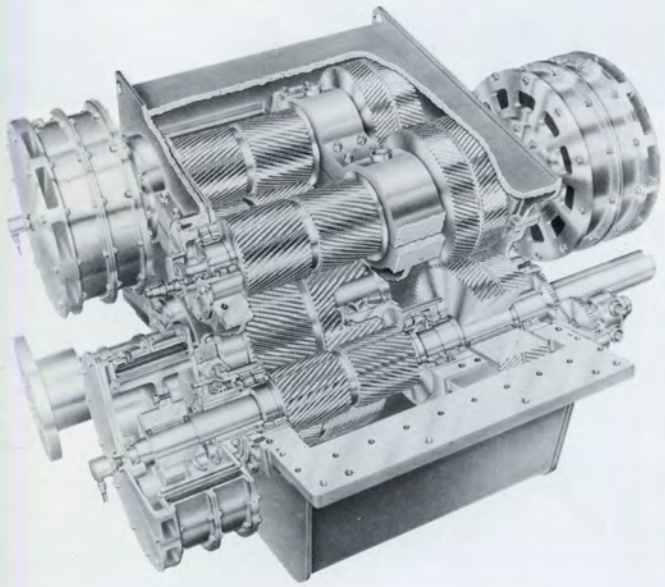
Diameter of Shafts, Inclusive	RECOMMENDED STANDARD KEYWAYS Width	Depth	Key Stock
5/16 to 7/16"	3/32	3/64	3/32 x 3/32
1/2 to 9/16"	1/8	1/16	1/8 x 1/8
5/8 to 7/8"	3/16	3/32	3/16 x 3/16
15/16 to 1 1/4"	1/4	1/8	1/4 x 1/4
1 5/16 to 1 3/8"	5/16	5/32	5/16 x 5/16
1 7/16 to 1 3/4"	3/8	3/16	3/8 x 3/8
1 13/16 to 2 1/4"	1/2	1/4	1/2 x 1/2
2 5/16 to 2 3/4"	5/8	5/16	5/8 x 5/8
2 13/16 to 3 1/4"	3/4	3/8	3/4 x 3/4
3 5/16 to 3 3/4"	7/8	7/16	7/8 x 7/8

Diameter of Shafts, Inclusive	RECOMMENDED STANDARD KEYWAYS Width	Depth	Key Stock
3 13/16 to 4 1/2"	1	1/2	1 x 1
4 9/16 to 5 1/2"	1 1/4	7/16	1 1/4 x 7/8
5 9/16 to 6 1/2"	1 1/2	1/2	1 1/2 x 1
6 9/16 to 7 1/2"	1 3/4	5/8	1 3/4 x 1 1/4
7 9/16 to 8 15/16"	2	3/4	2 x 1 1/2
9 to 10 15/16"	2 1/2	7/8	2 1/2 x 1 3/4
11 to 12 15/16"	3	1	3 x 2
13 to 14 15/16"	3 1/2	1 1/4	3 1/2 x 2 1/2
15 to 17 15/16"	4	1 1/2	4 x 3
18 to 21"	5	1 3/4	5 x 3 1/2

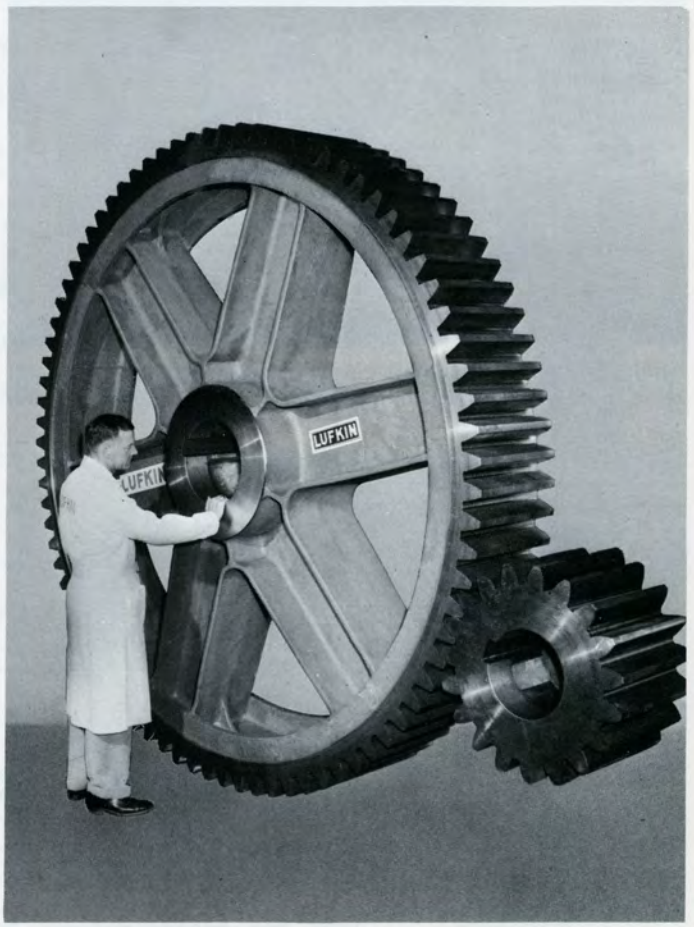
Lufkin High Speed Gear Units are furnished with the above standard keyways in the low speed and high speed shafts. The depth of the keyway in the coupling is the same as the depth of the keyway in the shaft; that is, the depth is one-half of the key height measured from the edge of the keyway.

SPECIAL LUFKIN GEAR UNITS

Lufkin Industries, Inc. builds special gear units to meet the demands of industry. Lufkin has the facilities and engineering staff to solve the difficult gear problems. The following pages show a few of the custom engineered units that are presently in operation. Lufkin will be happy to quote on your requirements.



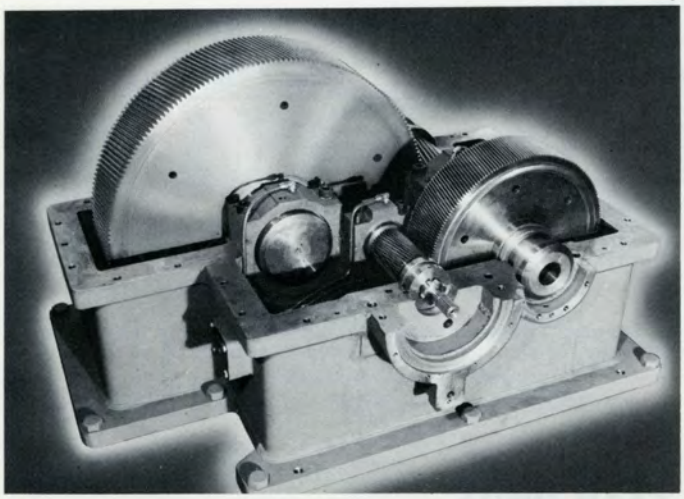
LUFKIN Model RHS2S3622 reverse reduction gear equipped with anti-friction bearings. Gear with two forward speeds is designed for 2800 H. P. at wheel speeds of 181 RPM (first fwd.) and 224 RPM (second fwd.) astern wheel speed is also 224 RPM.



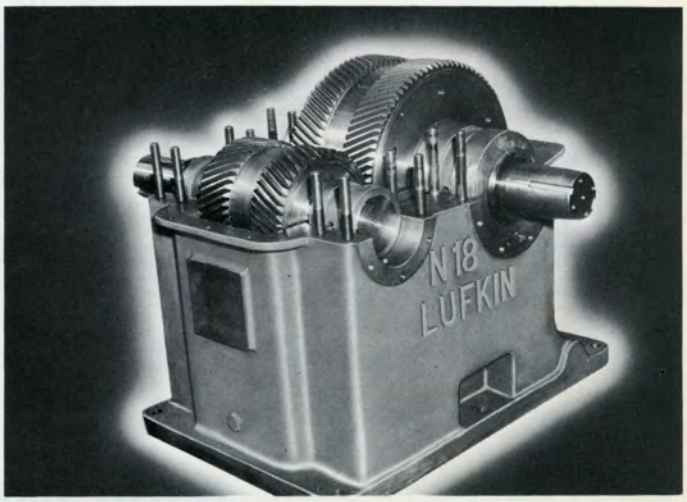
Large replacement open gears for sugar mill in Mexico. 116.39" pitch diameter, 18" face, 4.459 circular pitch.

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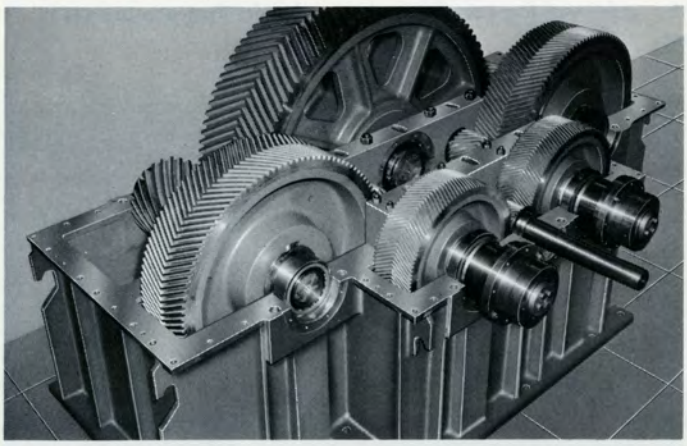
SPECIAL LUFKIN GEAR UNITS



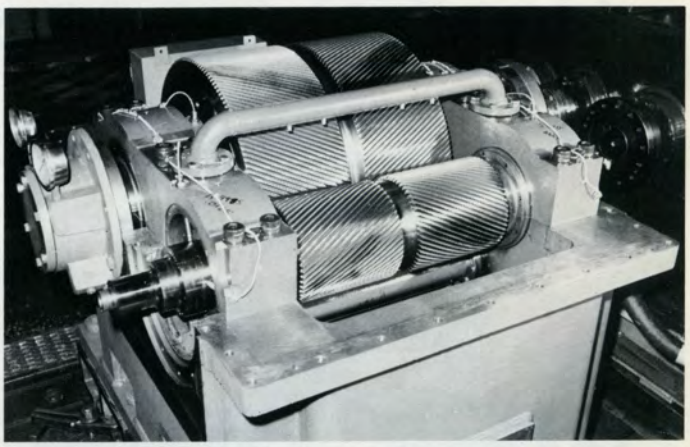
Lufkin NDL330 Reducer, 22,300 RPM input, 700 RPM output. Transmitting 1400 HP from a gas turbine to a four cylinder reciprocating compressor.



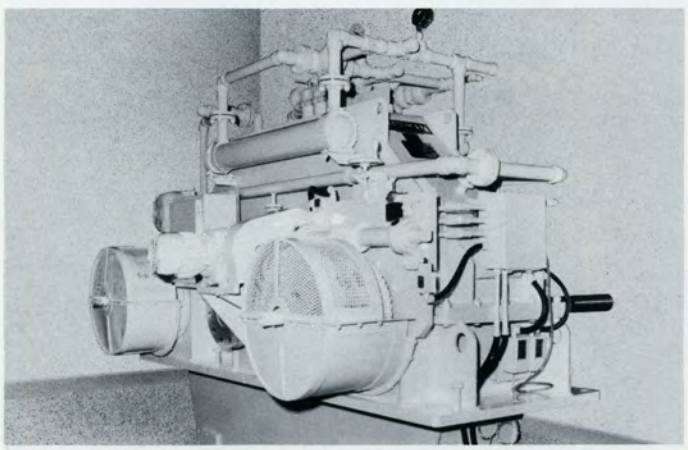
Lufkin N18 High Speed Reducer, 7000 RPM input, 3550 RPM output. Transmitting 7000 HP from a gas turbine to a centrifugal pump.



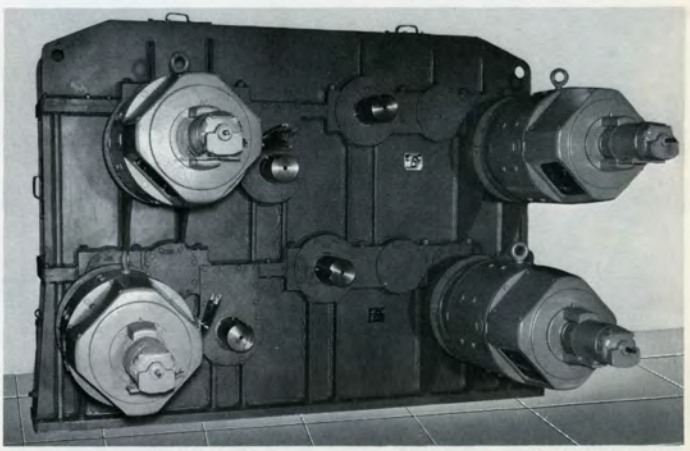
Lufkin TC4421 Triple Reduction Articulated Unit for sugar mill drive. Rating 508 HP at 689 RPM input.



LUFKIN NF2007C speed increaser, 30,000 transmitted H. P. input speed 4760 RPM, 13,500 RPM output, ratio 2.836:1.



LUFKIN MODEL CSQ7809 compound gear equipped with sleeve bearings and kingsbury thrust bearing. Gear designed for 1700 HP at 209 RPM wheel speed.

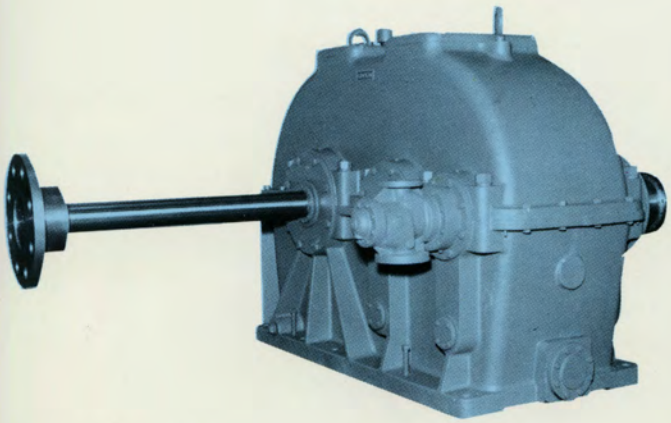


Lufkin QT290H Triple Reduction, four gear train unit for rubber mill calender drive.

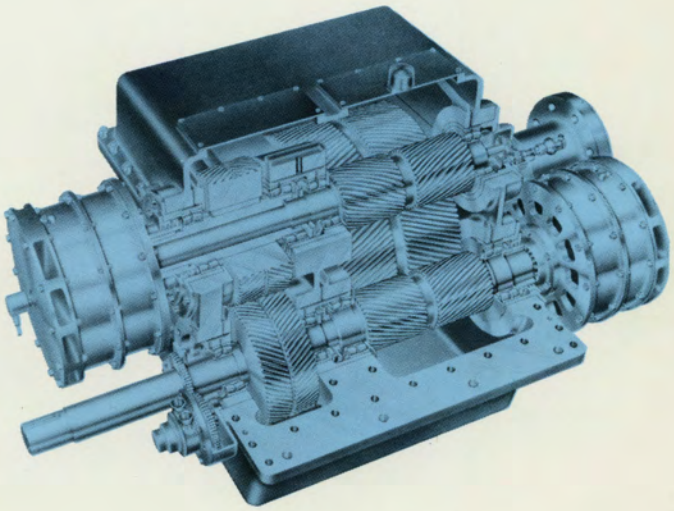
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OTHER LUFKIN GEAR PRODUCTS

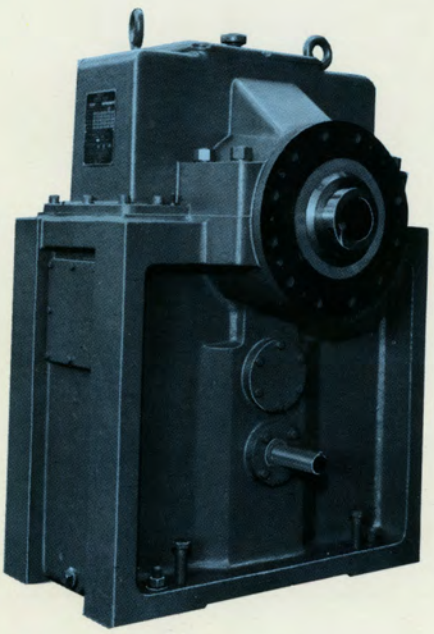
Lufkin Industries, Inc. manufactures a complete line of speed reducers and increasers with cast housings. The photos below show some of the types available.



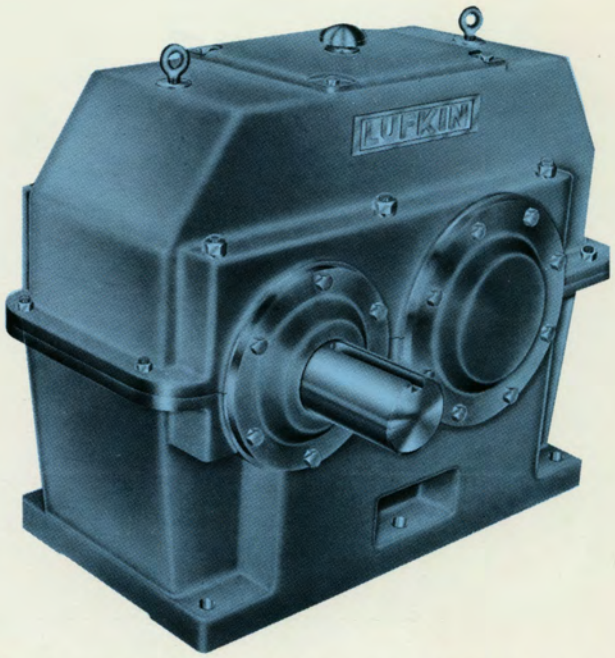
LUFKIN NQ440C high speed unit, 1700 H. P., input speed 5000 RPM, ratio 16.72:1. Equipped with a torque shaft for reciprocating compressor drive.



LUFKIN Model RHS2120 reverse reduction gear designed for 950 H. P. at 227 RPM wheel speed.



Lufkin Model D165-102C Extruder Drive with integral thrust bearing and speed change gears.



Lufkin Manufactures a complete line of Single, Double, Triple and Quadruple reduction units. Request gear catalog G-32A.

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Lufkin Milestones Of Growth

Lufkin Industries, Inc., founded as Lufkin Foundry and Machine Company in 1902 as a repair shop for sawmill and railroad machinery . . . guided by progressive leadership . . . gifted with technical ability . . . located strategically in the growing Southwest . . . of humble origin . . . this company has grown proudly in scope and stature with the advent of each new manufacturing division.



LUFKIN INDUSTRIES, INC.
LUFKIN, TEXAS

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