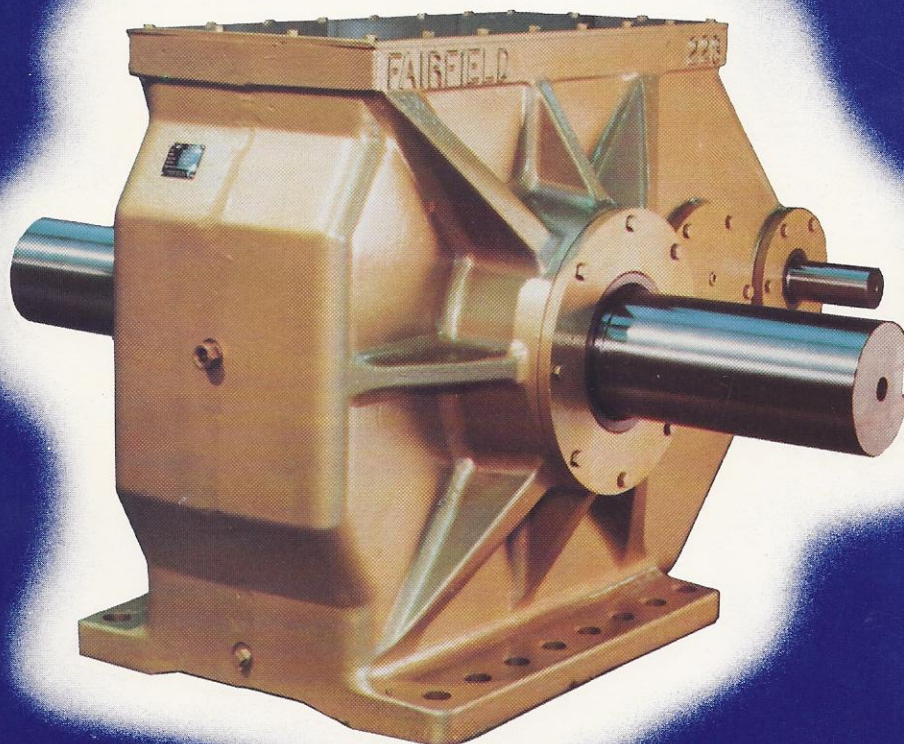


Fairfield

THE
DRIVE
PEOPLE

PUMPING UNIT GEAR DRIVES



Looking Closely...

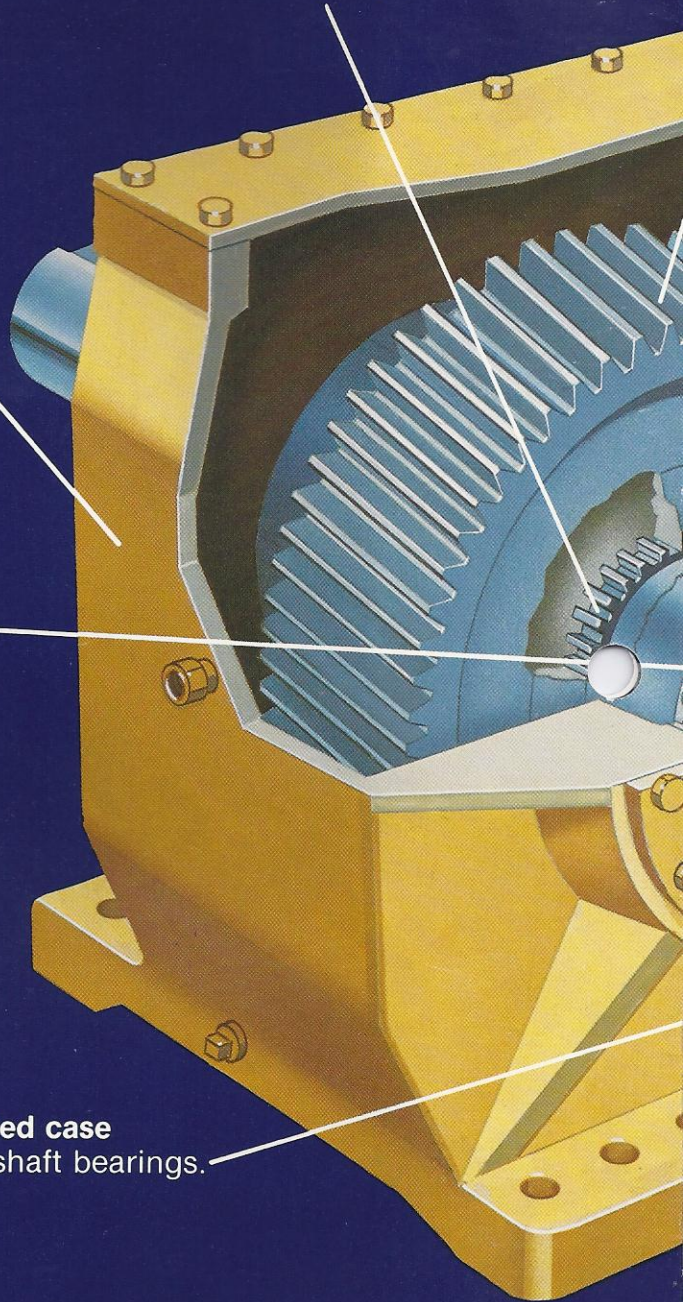
at Fairfield's Gear Drive will convince you that here is a rugged, heavy-duty gear reducer, designed for long and reliable service.

Full-spline shaft-to-gear fit
eliminates key and keyway problems.

No oil leaks—one-piece case
without split at bearings.

Heavy-duty bearings—Timken
tapered roller bearings throughout.

Rugged, heavily-ribbed case
with outboard crankshaft bearings.



Durable forged gears—case hardened helical teeth provide a ductile core for resiliency and high surface hardness for long wear.

Pressure vent breathers—to reduce condensation and dirt intake.

Positive lubrication of bearings and gear mesh.

Increased seal life from hardened and ground shafts.

Superior overload capability—shaft strength increased by using high-nickel-alloy heat-treated steel.

...and made in America

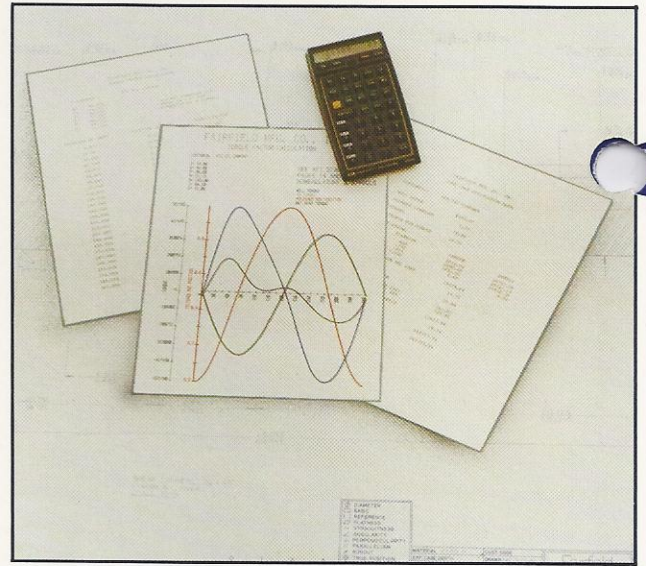
Wide model range to fit almost any pump requirement. We're here in Lafayette, Indiana USA, ...always ready to give you prompt service.

Engineering Service for Fairfield Customers

The Fairfield Oil-Pump Gear Drive gives you the finest pumping unit gear box that money can buy. At the same time, structure design and well application are just as important. To help achieve the greatest efficiency in pumping unit operation, *all our computer and calculator programs are available to customers.*

Computer programs include well application programs, torque factor programs for both tabulation and plotted outputs, bearing life calculation and beam strength programs. Fairfield also offers programs for the HP41 calculator, so application and torque factor calculations can be made in the field at the well site.

As a Fairfield customer, you automatically qualify for these programming aids to successful operation. Ask us about them!



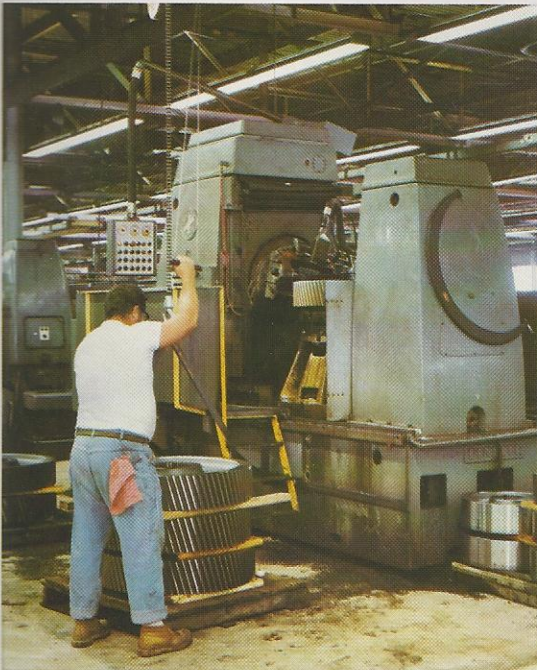
Fairfield Manufacturing Co., Inc.

... is the largest manufacturer of custom gears and gear products in the United States. Known for quality, the company has well over 1,000 employees in two modern plants (20 acres of floor space) in Lafayette, Indiana. A third plant is under construction in Oconee County, South Carolina.

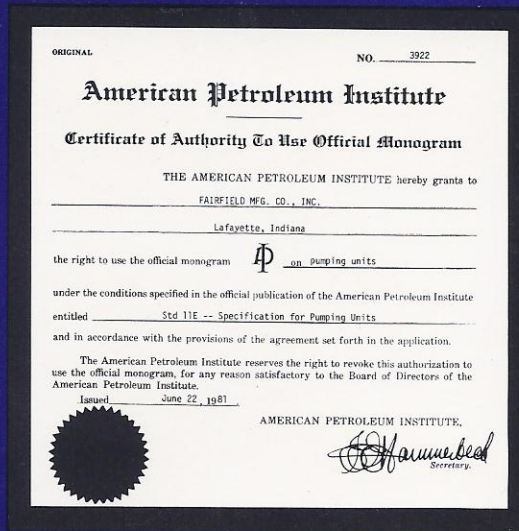
Primarily for the OEM market, Fairfield produces heavy-duty custom gears of all types, including complete drive systems, planetary assemblies, differentials, and gear trains, with or without housings. In the name-product field, Fairfield manufactures Torque-Hub® Final Drives (hydrostatic) and Max-Trac™ Differentials. All of these products see service in mobile or stationary equipment the world over.

Among Fairfield customers are manufacturers of agricultural equipment, heavy trucks, construction vehicles and machinery, mining machines, oil field equipment, material handling machines, locomotives and subway trains, and many other kinds of mobile and stationary equipment.

For further information on Fairfield products and services, please write, call, or Telex us today!

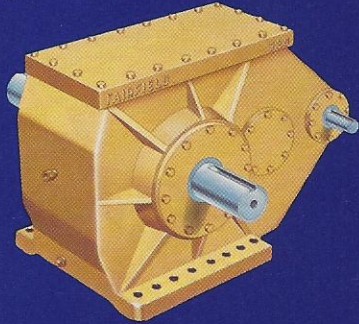


Reliability In The Field



Profitable pumping unit operation depends on an efficient gear drive, one designed to run reliably with a minimum of field attention. Fully tested and field-proven, Fairfield drives are the best that modern technology can devise. Their superior design, based upon many years of oil field gear experience, assures long and dependable service where it counts...in the field.

Over sixty years of engineering expertise and manufacturing experience plus a solid warranty... your assurance that pumping unit gear reducers produced by Fairfield Manufacturing will perform reliably and efficiently.



Fairfield

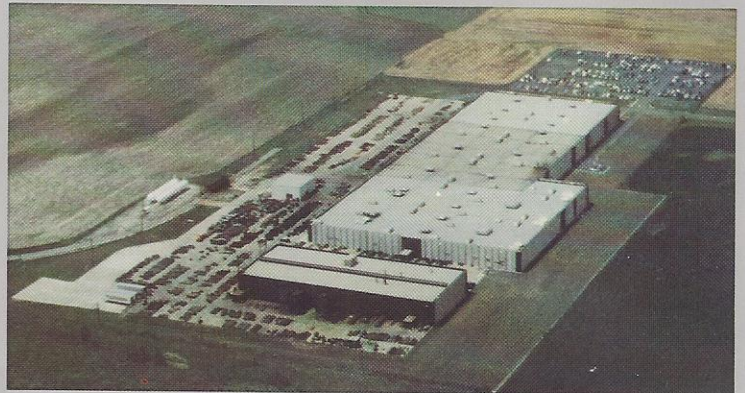
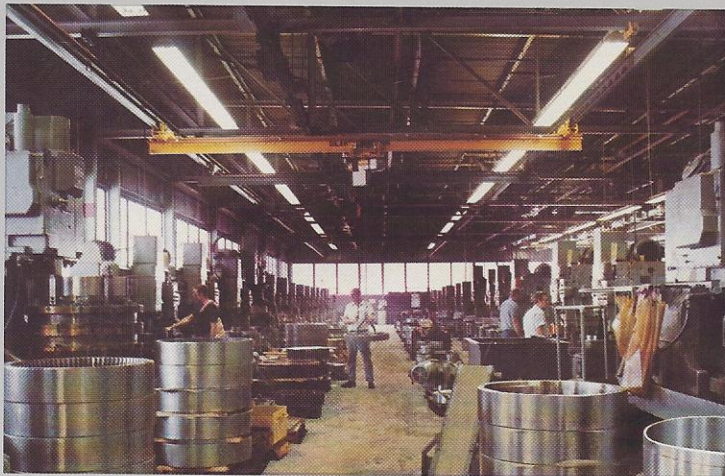
Manufacturing Company, Inc.

2300 S. Concord Rd., Lafayette, IN 47903 USA
317-474-3474 (Telex 27-9415)

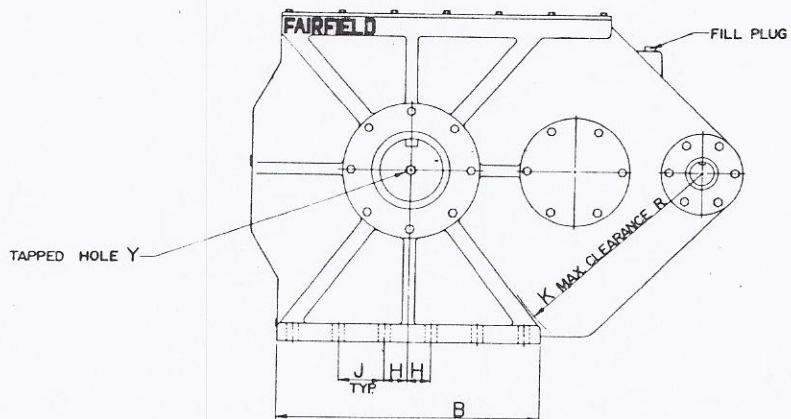
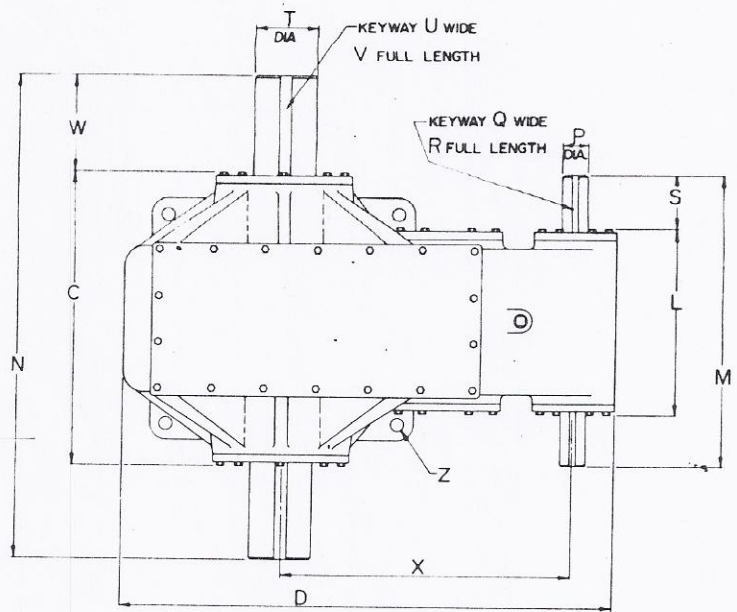
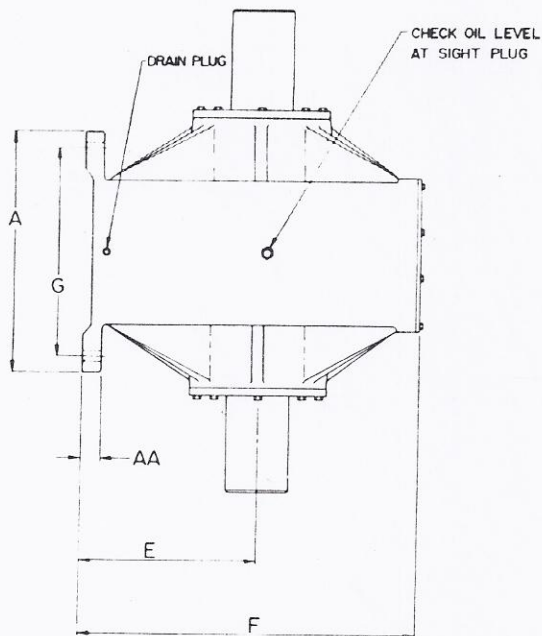
a Rexnord subsidiary



Main offices and plant, Concord Road



Brady Lane plant



INSTALLATION DATA

MODEL #	A	B	C	D	E	F	G	H	J	K
10	8.600	12 1/2	10.433	19.731	8.000	14 3/16	6.750	1 11/16	3.375	8 3/8
16	8.600	12 1/2	10.433	19.731	8.000	14 3/16	6.750	1 11/16	3.375	8 3/8
25	14.313	13 5/8	16.583	26.392	8.563	16.563	12.000	1 3/4	3.500	10 7/8
40	14.313	13 5/8	16.583	26.392	8.563	16.563	12.000	1 3/4	3.500	10 7/8
57	15.625	18 1/4	18.188	35.000	11.250	21.000	13.125	1 1/2	3.000	12 3/4
80	22.125	22	24.475	38.150	13.875	26.125	19.500	1.938	3.875	16 1/2

L	M	N	P	Q	R	S	T	U	V
6.771		16.823	1.438/1.436	3/8	2		2.188/2.186	5/8	2 1/4
6.771		16.823	1.438/1.436	3/8	2		2.188/2.186	5/8	2 1/4
9.923	16.062	28.736	1.500/1.498	3/8	2	3.070	3.000/2.998	3/4	4 1/2
9.923	16.062	28.736	1.500/1.498	3/8	2	3.070	3.500/3.498	7/8	4 1/2
12.181	18.438	31.625	1.687/1.686	3/8	2 1/2	3.129	4.000/3.999	1	5 1/2
16.246	25.312	42.750	2.000/1.998	1/2	3 7/8	4.533	4.500/4.498	1	7 1/2

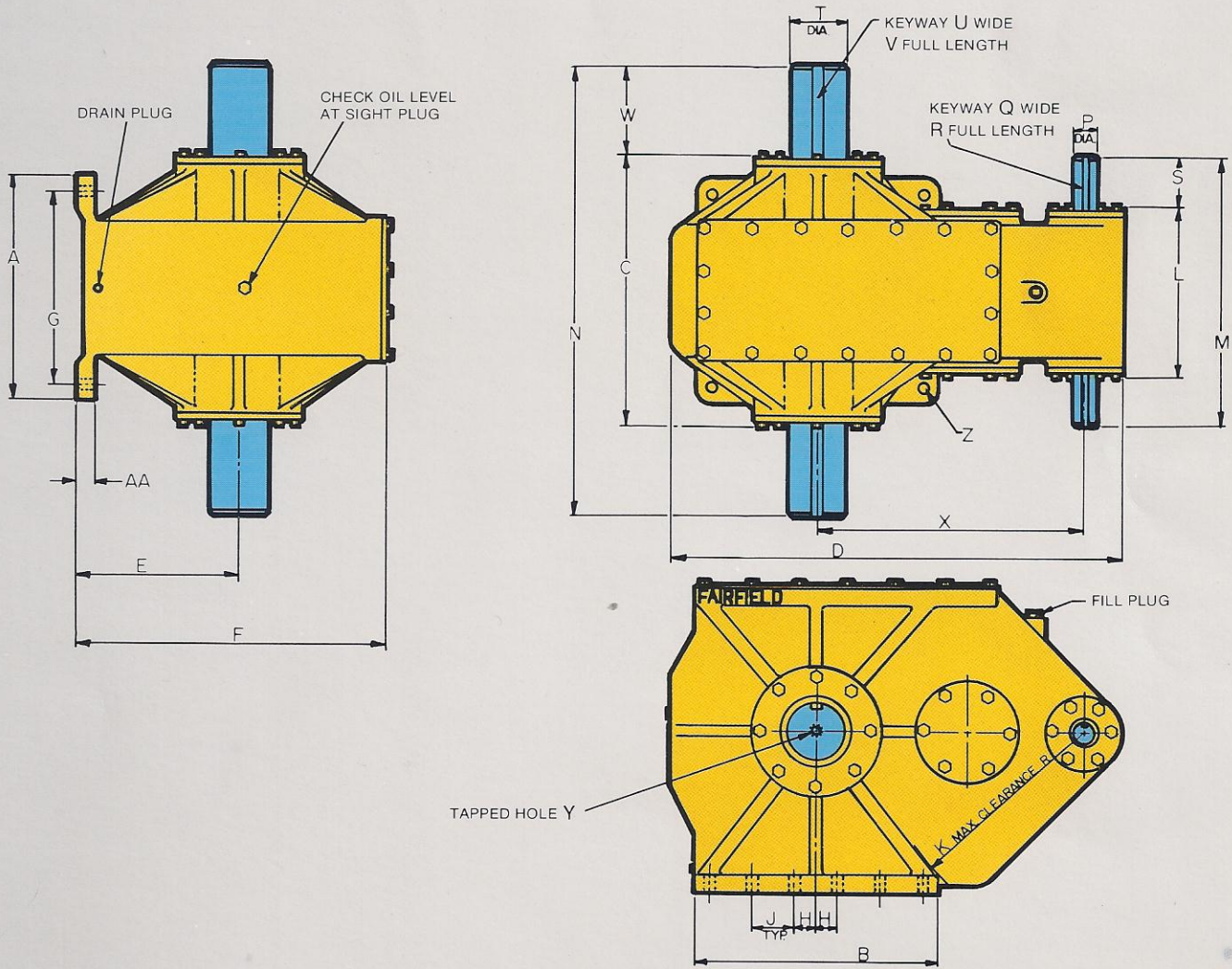
W	X	Y	Z	AA	RATIO
3.195	11.169		8 HOLES 13/16 DIA	1 1/4	30.060
3.195	11.169		8 HOLES 13/16 DIA	1 1/4	30.060
6.076	14.892	3/4 - 10 UNC X 1	8 HOLES 1 1/8 DIA	1 1/4	30.060
6.076	14.892	3/4 - 10 UNC X 1	8 HOLES 1 1/8 DIA	1 1/4	30.060
6.719	17.387	3/4 - 10 UNC X 1	12 HOLES 1 1/8 DIA	1 1/4	30.060
9.394	22.337	3/4 - 10 UNC X 1	12 HOLES 1 1/8 DIA	2	30.059

MODEL #	A	B	C	D	E	F	G	H	J
114	22½	22	24.475	38.150	13½	26½	19.500	1.938	3.875
160	22	24	26.981	44.268	16	30½	19.000	1.500	3.000
228	24½	28¼	27.345	49.383	17½	33½	20.875	1.750	3.500
320	25½	35	33.247	59.837	20¼	40½	20.125	2.125	4.250
456	26	35	36.690	62.564	20¼	40½	22.000	2.125	4.250
640	27¼	44	38.690	72.915	26¼	50½	22.000	2.688	5.375

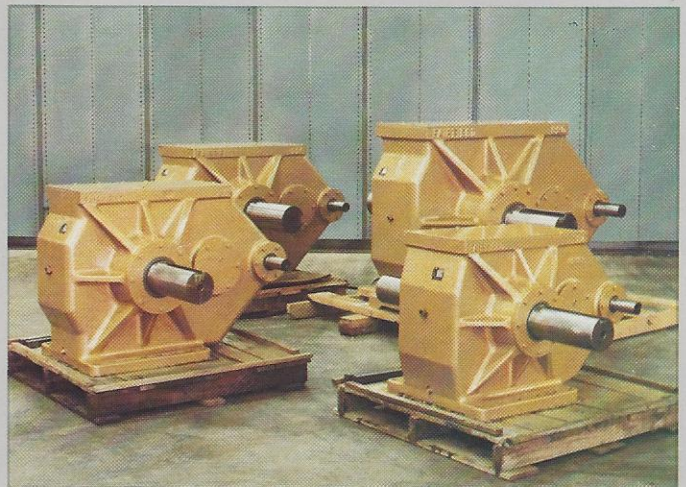
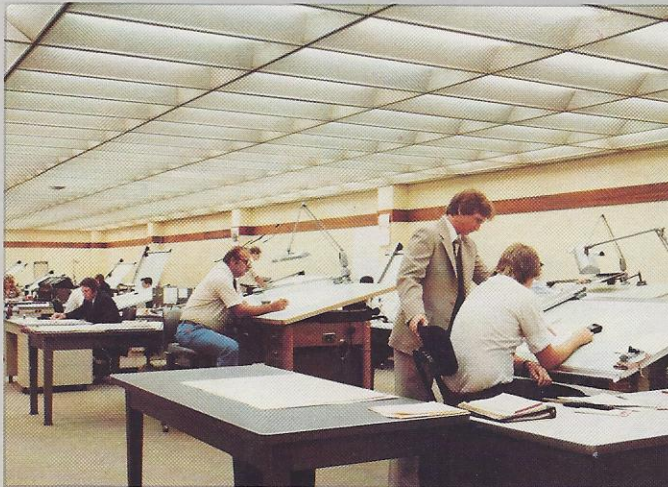
MODEL #	K	L	M	N	P	Q	R	S	T
114	16½	16.246	25.312	48.000	2.000/1.998	½	3½	4.533	5.000/4.998
160	20½	17.189	26.563	52.000	2.250/2.249	½	3½	4.687	5.500/5.498
228	21	17.855	27.875	54.000	2.500/2.499	¾	3½ ^{1/16}	5.010	6.000/5.998
320	24¼	17.640	31.000	60.000	3.000/2.998	¾	5¼	6.680	6.500/6.498
456	26	20.380	38.510	65.000	3.250/3.248	7/8	7¼	9.065	7.500/7.498
640	29¼	20.880	39.010	68.000	3.500/3.498	7/8	7¼	9.065	7.500/7.498

MODEL #	U	V	W	X	Y	Z	AA	RATIO
114	1¼	10¼	11.763	22.337	¾-10 UNC. × 1	12 HOLES 1½ DIA.	2.000	30.059
160	1¼	10½	12.510	26.090	1-8 UNC. × 1¼	16 HOLES 1½ DIA.	1.750	30.059
228	1½	10½	13.328	28.495	1-8 UNC. × 1¼	16 HOLES 1½ DIA.	2.000	30.059
320	1½	10½	13.377	34.774	1-8 UNC. × 1¼	16 HOLES 1½ DIA.	2.500	30.059
456	1½	10½	14.155	37.064	1-8 UNC. × 1¼	16 HOLES 1½ DIA.	2.500	29.043
640	1½	12	14.655	41.915	1-8 UNC. × 1¼	16 HOLES 1½ DIA.	3.000	30.059

Model Dimensions



Advanced Design and Engineering



Fairfield pumping unit reducers offer modern gear technology and advanced manufacturing processes. These reducers are designed specifically to meet severe oil field pumping unit requirements. Engineering specifications for material and heat treatment exceed API standard 11E and provide exceptional initial overload capacity. They are designed to operate with an applied load which is both irregular in speed and acceleration and which reverses at least two or more times per revolution of the output shaft. For your pumping unit applications, Fairfield Gear Drives are the latest word in "state-of-the art" pumping unit gear reducers.

Backed by Fairfield Expertise and Warranty. Fairfield has been producing gears and gear systems since 1919. Over the years, the company has made gears for a number of oil pumping unit manufacturers who assembled their own gear boxes. Fairfield is now producing the complete box, a more economical approach with quality assured for buyers of its pumping unit gear drives.

Our engineers are recognized as specialists in tooth geometry, stress analysis, material selection, metallurgical specification, heat treatment, inspection, and in every manufacturing technique common to the gear and gear systems industry. In addition, the Fairfield warranty is your guarantee that any pumping unit gear drive manufactured by the company is free from defects in materials and workmanship. The warranty covers a period of 12 months from date of first use or within 18 months of the date of shipment by Fairfield, whichever period expires first. (Ask for a copy of the complete warranty.)

FAIRFIELD 160 GEARBOX PARTS LIST

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	160-1-1M	INPUT SHAFT	1
2	160-1-2M	INTERMEDIATE SHAFT	1
3	160-1-3M	OUTPUT SHAFT	1
4	160-1-4M	INPUT GEAR	1
5	160-1-5M	OUTPUT GEAR	1
6	160-1-6M	INPUT BEARING CAP	2
7	160-1-7M	INTERMEDIATE BEARING CAP	2
8	160-1-8M	OUTPUT BEARING CAP	2
9	160-1-9M	OUTPUT BEARING SPACER	1
10	160-1-10M	MAIN CASE	1
11	160-1-11M	INPUT SHIMS	4
12	160-1-12M	INTERMEDIATE SHIMS	4
13	160-1-13M	OUTPUT SHIMS	4
14	160-1-14M	TOP COVER	1
15	806-13-19M	1/2-14 NPT PIPE PLUG	2
16	807-P-1	1 x 1 1/2 NPT PIPE PLUG VENT	1
17	805-29-21M	1/2-14 NPT PIPE PLUG	1
18	807-P-2	3/4-14 NPT SIGHT PLUG	1
19	805-29-17M	3/8-16 UNC HEX HEAD BOLT	18
20	114-1-12M	1/2-13 UNC HEX HEAD BOLT	40
21	39520	INPUT BEARING CUP	2
22	39590	INPUT BEARING CONE	2
23	772	INTERMEDIATE BEARING CUP	2
24	787	INTERMEDIATE BEARING CONE	2
25	82931	OUTPUT BEARING CUP	2
26	82576	OUTPUT BEARING CONE	2
27	24911	INPUT SEAL	2
28	56160	OUTPUT SEAL	2

