Price List No. 11

June 2021
PRICE SHEET

JOHNSON GEAR
Right Angle Gear Drive
CELEBRATING 100 YEARS
1905 - 2005

Speed Increasing Ratios (Fig. 1 Rotation)

Model	1:1	10:11	5:6	4:5	3:4	2:3	4:7	1:2
H20	2300	N/A	2300	N/A	2300	2600	N/A	N/A
H40	3100	3100	3450	3450	3450	3600	3600	3600
H60	3200	3700	3700	3950	3950	3950	3950	3950
H80	3600	4100	4100	4250	4250	4250	4250	4250
H110	3900	4300	4300	4400	4600	4600	4600	4600
H125	4200	4600	4600	4900	5000	5000	5000	5000
H150	5200	5200	5200	5400	5600	5600	6500	6500
H200	6200	6200	6200	6200	6750	6750	7800	7800
H250	10200	11200	11200	11400	11400	11700	11700	11700
H300	11100	12150	12450	12450	12450	12600	12600	12600
H350	13800	13800	13800	13900	13900	14000	15000	N/A
H425	16800	16800	16800	16900	16900	17100	18000	N/A
H500D	18630	18630	20500	20500	21700	21700	22700	22700
H600D	22800	22800	24900	24900	26900	26900	27900	27900
H750D	36000	36000	39000	39000	43400	43400	45000	45000
H1000D	47100	52000	52000	53800	57500	57500	57500	57500
H1200D	54600	54600	54600	C/F	C/F	C/F	C/F	C/F
H1500D	61800	61800	61800	C/F	C/F	C/F	C/F	C/F

Speed Decreasing Ratios (Fig. 1 Rotation)

Model	11:10	6:5	5:4	4:3	3:2	7:4	2:1	9:4	5:2	11:4	3:1
H20	N/A	2300	N/A	2300	2600	N/A	N/A	N/A	N/A	N/A	N/A
H40	3250	3250	3450	3450	3700	N/A	3600	N/A	N/A	N/A	N/A
H60	3500	3500	3500	3500	3960	N/A	3960	N/A	N/A	N/A	N/A
H80	3600	3600	3600	3600	4050	N/A	N/A	N/A	N/A	N/A	N/A
H110	3900	3900	3900	3900	4300	5600	5600	N/A	N/A	N/A	7800
H125	4200	4200	4200	4200	4600	6400	6400	N/A	N/A	N/A	8600
H150	5200	5200	5200	5200	5600	7200	7200	N/A	9400	N/A	9400
H200	6300	6300	6300	6300	6500	10200	10200	N/A	10200	N/A	10200
H250	11200	11200	11200	11200	11200	13000	13000	13000	13000	13000	13000
H300	12150	12150	12150	12150	12150	14600	14600	14600	14600	14600	14600
H350	13800	13800	13800	13800	14100	15600	15600	16000	16000	16000	16000
H425	16800	16800	16800	16800	17100	17300	17500	17500	18000	18000	18000
H500D	20150	20150	20150	20150	21700	22700	22700	23000	23000	23000	23000
H600D	24900	24900	24900	24900	26900	27900	27900	C/F	C/F	C/F	C/F
H750D	39150	39150	39150	39150	43400	45000	45000	C/F	C/F	C/F	C/F
H1000D	52000	52000	52000	52000	53800	57500	57500	C/F	C/F	C/F	C/F
H1200D	54600	54600	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
H1500D	61800	61800	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C	C/F

Prices shown are for Hollow Shaft Fig. 1 and include standard non-reverse ratchet and coupling. Models H60 and larger include oil coolers.
See next page for Non-Standard adders. All prices in U.S. Currency & subject to change without notice. All prices are F.O.B. shipping point.
C/F = Contact Factory. N/A - Not Available

ROTATION


Fig. 1


Fig. 2


Fig. 3


Fig. 4

Johnson Gear, Inc. -- Price List -- June 2021

Adders for Non-Standard Extras						
Model	**Figure 2 - 3 - 4**	**Heavy Thrust**	**Manual Combination**	**Solid Shaft**	**Redi-Torq**	**Slant Drives**
H20	1540	N/A	5045	3500	N/A	2170
H40	2000	N/A	5600	3900	15800	2170
H60	2000	N/A	5600	3900	15800	2170
H80	2000	1450	5600	3900	N/A	2170
H110	2000	1560	6680	3900	18800	2170
H125	2000	1560	6680	3900	18800	2170
H150	2650	1560	7860	4200	21150	2560
H200	2750	1560	7860	4200	21150	2560
H250	2900	2650	11150	4950	N/A	2560
H300	2900	2650	11150	4950	N/A	2560
H350	2900	2800	11500	4950	N/A	C/F
H425	2900	3300	11850	6010	N/A	C/F
H500D	4100	4500	12300	6750	N/A	C/F
H600D	4100	INC	17000	6750	N/A	C/F
H750D	C/F	INC	C/F	C/F	N/A	C/F
H1000D	C/F	C/F	C/F	C/F	N/A	C/F
H1200D	C/F	C/F	C/F	C/F	N/A	C/F
H1500D	C/F	C/F	C/F	C/F	N/A	C/F

						NET ADDERS	
Model	**Sprag Non-Reverse**	**Lower Steady Bushing**	**Cupro-Nickel Oil Cooler**	**Marine Package**	**Factory Mutual FM Label**	**Synthetic 629 Oil**	**Plywood Boxing**
H20	N/A	N/A	N/A	870	450	45	130
H40	N/A	980	N/A	980	450	65	175
H60	520	980	400	980	450	65	175
H80	520	980	400	980	450	65	175
H110	520	980	400	1160	450	120	200
H125	520	980	400	1160	450	120	200
H150	700	1170	690	1560	450	240	260
H200	700	1170	690	1560	450	240	260
H250	700	1170	890	2270	450	260	290
H300	700	1170	890	2270	450	260	290
H350	700	1960	890	2900	450	400	350
H425	980	1960	980	2900	450	400	350
H500D	980	1960	980	2900	450	400	350
H600D	980	1960	C/F	4250	450	400	400
H750D	C/F	C/F	C/F	4250	450	650	580
H1000D	C/F	C/F	C/F	C/F	450	650	580
H1200D	C/F	C/F	C/F	C/F	450	650	690
H1500D	C/F	C/F	C/F	C/F	450	650	780

Prices Subject To Change Without Notice

JOHNSON GEAR

Right Angle Gear Drive

CELEBRATING 100 YEARS
1905 - 2005

1110 N. AVE. T
LUBBOCK, TEXAS 79415
Phone 806-749-6400, Fax 806-749-6477

PRICE LIST
June 2021

PROPELLER PUMP GEAR DRIVES

RATIO	2:1	5:2	3:1	7:2	4:1	9:2	5:1	11:2	6:1
MODEL M80P	5200	5800	5800	N/A	N/A	N/A	N/A	N/A	N/A
M200P	7700	8800	8800	N/A	N/A	N/A	N/A	N/A	N/A
M16AH	12000	12000	12000	12250	12250	N/A	12500	N/A	N/A
M20A	19750	19750	19750	19750	21000	21000	21000	21000	21000
M22A	35800	35800	35800	35800	35800	35800	35800	35800	35800
M26A	51800	51800	51800	51800	51800	51800	51800	51800	51800
M30A	63500	63500	63500	63500	63500	63500	63500	63500	63500
M32A	CONTACT FACTORY								
M34A	CONTACT FACTORY								
M36A	CONTACT FACTORY								
M40A	CONTACT FACTORY								
M44A	CONTACT FACTORY								
M48A	CONTACT FACTORY								
M52A	CONTACT FACTORY								

OPTIONS - TO BE ADDED TO THE LIST PRICE OF STANDARD DRIVES

MODEL	Special Rotation Fig.2,3,4	Extra Heavy Thrust	Vertical Solid Shaft	Opposed Thrust Bearings	Marine Package	Copper Water Cooler	Combination Motor Stand		Net Export Box	Sprag Non-Reverse	Slant Drives
							Manual	Automatic			
M80P	1900	0	3400	C/F	1200	215	5900	7150	INCL	2350	200
M200P	2500	2300	4300	C/F	2200	215	9000	12500	INCL	3500	300
M16AH	2600	C/F	3600	INCL	1700	C/F	8000	17250	INCL	5000	250
M20A	2700	C/F	4300	INCL	2200	C/F	9000	23750	INCL	7000	375
M22A	3000	C/F	4500	INCL	2500	C/F	9700	28000	INCL	8000	475
M26A	4750	C/F	5000	INCL	3500	C/F	10000	30250	INCL	9000	800
M30A	6000	C/F	6250	INCL	4500	C/F	12900	32000	INCL	10500	1100
M32A	CONTACT FACTORY										
M34A	CONTACT FACTORY										
M36A	CONTACT FACTORY										
M40A	CONTACT FACTORY										
M44A	CONTACT FACTORY										
M48A	CONTACT FACTORY										
M52A	CONTACT FACTORY										

C/F = Contact Factory N/A = Not Available INCL = Included

Propeller Pump Drives are fan cooled and require no additional water cooling. Marine Package includes stainless steel hardware, nameplate, oil tube, and epoxy paint. If sea water cooler, or shell and tube external cooler is required, please contact factory.

Torsional Dampening Couplings

Model	Bore Size	Keyway	Part #	List Price
H40/60/80	1 7/8	1/2	TC-VSK15-1875	$1,940
H110/125	2	1/2	TC-VSK25-2000	$2,231
H150/200	2 7/16	5/8	TC-VSK25-2437	$2,094
H250/300/350	2 3/4	5/8	TC-VSK45-2750	$6,600
H425	3	3/4	TC-VSK50-3000	$7,379
H500	3 1/2	7/8	TC-VSK50-3500	$6,708
H600 & UP	C/F	C/F	C/F	C/F

Increase Your Pumping System Protection

The use of diesel engines to drive right angle drives and pumping systems has increased over recent years and with that, technological improvements in components have caused drastic reductions in engine weight, increased compression ratios and turbo charging. These changes have resulted in the transfer of power from the engine to the driven equipment to not be as smooth as before.

Premature failure of the components in a pump system can occur when operating at or near (+/- 10%) a torsional resonant speed. With engine driven systems, it is not uncommon for one or more resonant speeds to exist between zero (0) rpm and the operating speed of the system. Continued operation at a resonant speed will result in torsional vibrations, which can be damaging to all components in the system. Vibratory torque, much higher than the rated torque of the driven components, is not uncommon.

Typical modes of failure are broken crank shafts, drive line shafts, drive line shafts twisting in two, broken input shafts, and broken gear teeth. Unusual rumbling and clattering noise from the gear drive at specific speed is the most common indication of torsional vibrations. As the speed is increased or decreased, the noise will disappear. Noise is a result of the gear teeth separating and clashing together very rapidly when the vibratory torque exceeds the drive torque, typically at a resonant speed. Transition through a resonant speed is not normally damaging, but operation at or near the resonant speed, should be avoided.

To avoid operation at a resonant speed, it may be necessary to make a change to the speed of the engine with respect to the pump, or change the elastic characteristics; a torsional coupling needs to be added to the system.

The torsional coupling is designed and installed with systems using U-joint type drive-lines and standard gear drives. The coupling is usually self-supporting and is selected with the best compromise of torsional characteristics for engines operating between 1200 and 2400 rpm. In most cases, the coupling can be installed with minimal modifications to the drive-line shaft and guarding system. Guarding systems, should always be used around rotating shafts and couplings. Johnson Gear does not supply guarding systems.

This torsional coupling is designed to be installed with systems using U-joint type drive lines and standard gear drives. The bonded-rubber element is manufactured by Ringfeder and is self supporting. The coupling has been selected with the best compromise of torsional characteristics for engines operating between 1200 and 2400 rpm. In most cases the standard element will work. If all operating parameters are known, a torsional vibration analysis can be performed at an extra cost. If needed, rubber elements with different torsional characteristics can be supplied. Different selections may be determined by operation or analysis.
(Ringfeder Corp. - 201-666-3320)

In most cases, the coupling can be installed with minimal modifications to the drive line shaft length and guarding system.

WARNING: ROTATING SHAFTS AND COUPLINGS ARE DANGEROUS AND CAN CAUSE SERIOUS INJURY. AN ADEQUATE GUARD MUST BE INSTALLED AROUND THE COUPLING AND DRIVE SHAFT BEFORE OPERATION OF THE GEAR DRIVE. THE GUARD IS NOT SUPPLIED BY JOHNSON GEAR, INC.

JOHNSON GEAR, INC. – LUBBOCK, TEXAS
PHONE 806-7496400, FAX 806-749-6477

All Prices are F.O.B. Lubbock, TX

Approximate Shipping Weights and Dimensions

		Gross Weight. Lbs		Box Dimensions in Inches			Volume
Model	Net Weight Lbs.	Domestic & Container	Plywood	Width	Depth	Height	Cu. Ft.
H20	160	195	220	26	19	38	11
H40	310	335	375	26	19	38	11
H60	320	335	375	26	19	38	11
H80	320	335	375	26	19	38	11
H110	445	470	500	26	19	38	11
H125	450	480	510	26	19	38	11
H150	710	750	790	34	23	47	21
H200	710	750	790	34	23	47	21
H250	955	1050	1100	41	31	54	40
H300	955	1050	1100	41	31	54	40
H350	1430	1495	1575	47	31	56	47
H425	1540	1650	1700	47	31	56	47
H500	1625	1735	1785	47	31	56	47
H600	2000	2070	2130	47	31	56	47
H750	2200	2300	2440	47	31	64	54
H1000	2100	2200	2340	47	31	64	54
H1200	3160	3260	3500	54	36	64	72
H1500	3160	3260	3500	54	36	64	72

(1) Weights are for standard hollowshaft drives only. Refer to factory for other types.

(2) Reinforced cardboard box kit for domestic & container shipment.

(3) Plywood box kit for export shipment. Subject to price extra indicated on p.2.

Warranty

1. The Johnson Right Angle Gear Drive is warranted to be free from defects in material and workmanship under normal use and service for a period of one year from the date of factory shipment by us for the original purchaser and then only when operated within the rated capacity for which it was sold and in accordance with recognized usage and practice. Our obligation under this warranty is limited to the replacement of any part or parts which shall be returned to us with transportation charges prepaid, within one year after shipment for the original purchaser; and, which it is determined by the company, to have proven defective under normal and proper use. This warranty shall not apply to any drive which has been altered or repaired outside our factory without our written consent and approval, or any drive which has been subject to misuse, neglect, accident, improper oiling, or torsional damage.

2. We make no warranty of any kind whatever, express or implied, in regard to bearings, trade accessories, machinery, or other articles of merchandise not manufactured by us. The bearings which we have selected for the thrust position will cover most installations, but there are many cases which will require special treatment.

3. Johnson Gear is a supplier of only one component in the pumping system; we have no control over system design, or engine selection. It is the responsibility of those who select the equipment for the pumping project to assure that damage to any component does not occur due to Torsional Vibration. Johnson Gear will award a three-year warranty to any drive that is equipped with a torsional dampening devise, located between the engine flywheel and the gear drive.

4. No warranty or guarantee is binding upon the company and no asserted breach thereof can be claimed against the company unless the company has been notified in detail and in writing of any alleged defect within seven (7) days after the discovery thereof.

5. The express warranties and guarantee contained herein are exclusive and are made in lieu of any other representation by the company or its agents, and any implied warranty of Merchantability or Fitness for a Particular Purpose are hereby expressly disclaimed. It is agreed that the language contained herein shall be the final and exclusive expression of the agreement with respect to sale of equipment by the company.

JOHNSON GEAR
Right Angle Gear Drive

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