# BRONZE CLOSE COUPLED **ROTARY GEAR PUMPS**

**OBERDORFER PUMPS** A Subsidiary of Thomas Industries Inc.



# MODEL N992(R) Q-J75/J76 MODEL N992(R) C81, C82

### **PERFORMANCE - WATER 70°**

											Pressur	e (P.S.I.	)						
Model	Voltage	HP		5	10	15	20	25	30	35	40	45	50	55	60	70	80	90	100
C81	12 VDC	1/4	Flow (GPM)	2.8	2.7	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0					
			Speed (RPM)	1140	1120	1100	1090	1070	1060	1040	1020	1000	990	970					
8295			Current (Amps)	4.5	5.5	6.4	7.4	8.7	9.5	10.7	12.4	13.4	14.4	15.7					1
C82	24 VDC	1/4	Flow (GPM)	5.9	5.8	5.8	5.7	5.6											
			Speed (RPM)	2330	2310	2300	2280	2270											
8295			Current (Amps)	5.9	6.8	7.6	8.4	9.1											l l
C74	12 VDC	1/4	Flow (GPM)	5.3	5.1	5	4.9	4.7											
			Speed (RPM)	2020	2020	1990	1960	1920											
2924			Current (Amps)	12.5	12.5	14.3	16.5	18.2											
F93	24 VDC	1/3	Flow (GPM)	4.9	4.9	4.8	4.8	4.7	4.6	4.5	4.5	4.4	4.3	4.3	4.2	4.1			
			Speed (RPM)	1960	1950	1950	1930	1920	1910	1910	1900	1900	1890	1890	1870	1850			
3073			Current (Amps)	5.1	5.5	6.1	6.9	7.7	8.6	8.9	9.2	9.8	10.1	10.5	11.5	12.8			
J75	12 VDC	1/2	Flow (GPM)	4.7	4.7	4.6	4.5	4.4	4.4	4.4	4.3	4.3	4.2	4.2	4.1	4	3.8	3.7	
			Speed (RPM)	1860	1850	1840	1830	1830	1830	1830	1830	1820	1820	1820	1820	1790	1770	1750	
8562			Current (Amps)	10.8	10.8	12.4	14.1	14.8	15.4	16.3	17.5	18.9	20.3	22.5	23.9	31.5	34.5	38.2	
J76	24 VDC	1/2	Flow (GPM)	5.1	5.1	5	6	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.4	4.3	4.1	4	
			Speed (RPM)	2020	2020	2020	2010	2000	2000	1990	1990	1980	1980	1970	1950	1940	1920	1900	
8563			Current (Amps)	5.8	5.8	6.3	6.9	7.5	8.2	8.8	9.2	9.9	10.5	11.3	12.2	15.9	17.3	18.7	
Notes:	Max	cimum recom	mended operating	point															

#### **FEATURES**

- Compact design eases installation and use in limited space areas.
- Construction is bronze and stainless steel wetted components.
- · Close tolerance design allows for consistent performance.
- Self-Lubricating Bearings
- Complete Units Available
- Slotted Motor Base
- · Permanent Magnet Rigid Base Motors

#### **GENERAL DESCRIPTION**

Pump housings and gears are made of top quality bronze, shafts are 303 stainless steel. Bearings are designed of high performance carbongraphite material selected for wear resistance and long service life.

Gear pumps are positive displacement pumps. Each shaft revolution displaces a definite amount of liquid relatively unaffected by the back pressure in the discharge line. Shaft speed and flow are directly proportional.

#### LIQUIDS AND TEMPERATURE

Compact DC portable units convienient for on site servicing of vehicles, machinery and field equipment. For pumping oil direct from crankcase or oil resevoir, drums, containers, transfer diesel fuel to vehicles, pumping other liquids and chemicals compatible with materials of construction. Pumping viscous oils, SAE 30 or greater, can overload motor. Intermittent use is recommended when pumping viscous oils, especially in cold weather.

Service life will be increased substanially if liquid pumped is clean and has lubricity value. These pumps have extremely close tolerances. Fine abrasives like sand, silt or powders in suspension will destroy pumping ability.

Liquids compatible with bronze, stainless steel and the Buna lip seal can be pumped. For solvents a Viton lip seal is available. For a Viton(R)\* Seal, add S5 to the pump model number. See chemical compatibility table.

Temperature extremes are detrimental to service life and should be avoided. Basic metals of construction allow temperature range of -40° to 400°F. Standard Buna lip seal has a temperature limit of 250°F, while the VIton lip seal will handle up to 300°F. Freezing liquid in the pump can deform or damage the pump.

#### SUCTION LIFT

As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid source as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with builtin strainer) is recommended at the beginning of the suction line. For a first start-up, the pump should be primed to avoid dry running. MInimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet) or for viscous liquids, the pipe should be at least one size or two sizes larger than the pump inlet port.

#### **ROTATION AND RELIEF VALVE**

If the discharge line contains any throttling devices such as a shut-off valve, a spray nozzle or other restrictive device, it is necessary to have a relief valve in the system which returns the liquid to the suction side or to the tank. The relief valve is also available as part of the pump itself (R-model pumps). However, built-in relief valves are only good for intermittent service. If used continuously, the pump will overheat. A built-in relief valve is strictly a safety device against overpressure. It will not work successfully as a pressure or flow control device. For this purpose a separate relief valve in the pressure line must be used.

Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation counterclockwise from shaft end. Reversing motor will reverse "in and "out" ports and also requires changing relief valve location. The relief valve is always on the inlet side of this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

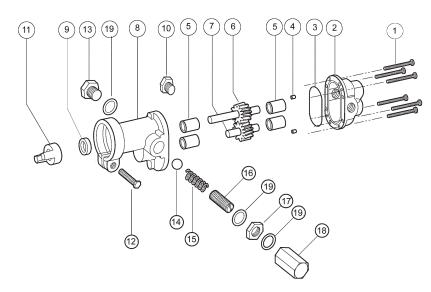


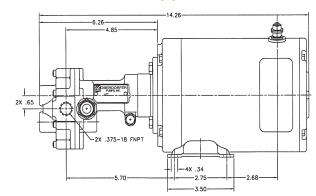
# BRONZE CLOSE COUPLED **ROTARY GEAR PUMPS**

**OBERDORFER PUMPS** A Subsidiary of Thomas Industries Inc.

EXPLODED VIEW AND PARTS LIST



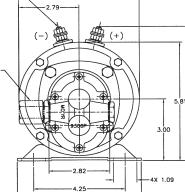






"R" OR RELIEF VALVE PUMPS ONLY

2X .50-20 UNC TERMINAL POST

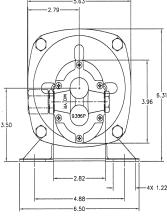


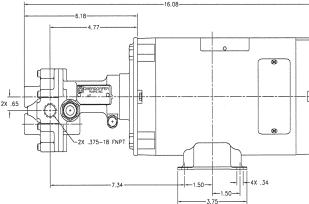
5.75

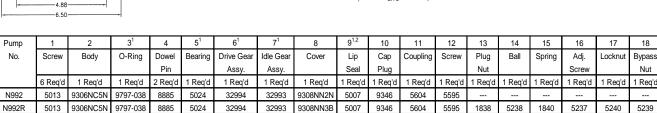
ROTATION

-ø5.59

N992(R) Q-J75/J76







Repair Kits contain items 3, 5, 6, 7 & 9. Repair Kit for N992(R) is #10631. <sup>2</sup> Seal #5007 is standard Buna N, #7580 is Viton(R)\*-Teflon(R)\*

23 26 27 20 21 22 Bracket/ Adapter Adapter Kit Spide Coupling Half Screw Motor Product Numbe 1 Req'd 1 Req'd 1 Req'd 4 Req'd 1 Req'd 1 Req'd 7839 7643 8335 5411 8563 11331 J76 992(R) Q Q J75 7839 7643 8335 5411 8562 11331 992(R) 992(R) Q F93 7839 7643 8335 5411 3073 11331 992(R) 0 C74 7839 7643 8335 5411 2924 11331 **C81** 7839 7643 7602 5916 8295 12144 92(R) C82 7839 7643 7602 5916 8295 12144 992(R)

### **RECOMMENDED WIRE SIZE AND LENGTH AWG** WIRE SIZE AND MAXIMUM LENGTH IN FEET

	NO.14	NO.12	NO.10	NO.8
12 VOLT DC	11 FT.	18 FT.	28 FT.	45 FT.
24 VOLT DC	20 FT.	34 FT.	55 FT.	87 FT.
32 VOLT DC	35 FT.	56 FT.	91 FT.	144 FT.

Specifications are subject to change without notice.

3/05

19

Fiber

Washe

3 Req'd

6533



by Gardner Denver

# Bronze Close Coupled Rotary Gear Pumps N992(R) DC Series



### **FEATURES:**

- Compact design eases installation and use in limited space areas.
- Construction is bronze and stainless steel wetted components.
- Close tolerance design allows for consistent performance.
- Self-Lubricating Bearings
- Complete Units Available
- Slotted Motor Base
- Permanent Magnet Rigid Base Motors

### **GENERAL DESCRIPTION:**

Pump housings and gears are made of top quality bronze, shafts are 303 stainless steel. Bearings are designed of high performance carbongraphite material selected for wear resistance and long service life.

Gear pumps are positive displacement pumps. Each shaft revolution displaces a definite amount of liquid relatively unaffected by the back pressure in the discharge line. Shaft speed and flow are directly proportional.

#### LIQUIDS AND TEMPERATURE:

Compact DC portable units convienient for on site servicing of vehicles, machinery and field equipment. For pumping oil direct from crankcase or oil resevoir, drums, containers, transfer diesel fuel to vehicles, pumping other liquids and chemicals compatible with materials of construction. Pumping viscous oils, SAE 30 or greater, can overload motor. Intermittent use is recommended when pumping viscous oils, especially in cold weather.

Service life will be increased substanially if liquid pumped is clean and has lubricity value. These pumps have extremely close tolerances. Fine abrasives like sand, silt or powders in suspension will destroy pumping ability. Liquids compatible with bronze, stainless steel and the NBR lip seal can be pumped. For solvents a FKM lip seal is available. For a FKM Seal, add S5 to the pump model number. See chemical compatibility table. Temperature extremes are detrimental to service life and should be avoided. Basic metals of construction allow temperature range of -40° to 400° F. Standard NBR lip seal has a temperature limit of 250° F, while the FKM lip seal will handle up to 300° F. Freezing liquid in the pump can deform or damage the pump.

### **SUCTION LIFT:**

As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid source as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with builtin strainer) is recommended at the beginning of the suction line. For a first start-up, the pump should be primed to avoid dry running. Minimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet) or for viscous liquids, the pipe should be at least one size or two sizes larger than the pump inlet port.

### **ROTATION AND RELIEF VALVE:**

If the discharge line contains any throttling devices such as a shut-off valve, a spray nozzle or other restrictive device, it is necessary to have a relief valve in the system which returns the liquid to the suction side or to the tank. The relief valve is also available as part of the pump itself (R-model pumps). However, built-in relief valves are only good for intermittent service. If used continuously, the pump will overheat. A built-in relief valve is strictly a safety device against overpressure. It will not work successfully as a pressure or flow control device. For this purpose a separate relief valve in the pressure line must be used.

Unless otherwise specified, the pump motor unit is supplied by the factory for shaft rotation counterclockwise from shaft end. Reversing motor will reverse "in and "out" ports and also requires changing relief valve location. The relief valve is always on the inlet side of this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

# **Bronze Close Coupled Rotary Gear Pumps**

N992(R) DC Series

## **PERFORMANCE:**

Capacity - Water 70° F Pro											essure (P.S.I.)								
Motor No.	Voltage	HP		5	10	15	20	25	30	35	40	45	50	55	60	70	80	90	100
C81			Flow (GPM)	2.8	2.7	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.0					
	12 VDC	1/4	Speed (RPM)	1140	1120	1100	1090	1070	1060	1040	1020	1000	990	970					
8295			Current (Amps)	4.5	5.5	6.4	7.4	8.7	9.5	10.7	12.4	13.4	14.4	15.7					
C82			Flow (GPM)	5.9	5.8	5.8	5.7	5.6											
	24 VDC	DC 1/4	Speed (RPM)	2330	2310	2300	2280	2270											
8295			Current (Amps)	5.9	6.8	7.6	8.4	9.1											
C74			Flow (GPM)	5.3	5.1	5.0	4.9	4.7											
	12 VDC	1/4	Speed (RPM)	2020	2020	1990	1960	1920											
2924			Current (Amps)	12.5	12.5	14.3	16.5	18.2											
F93			Flow (GPM)	4.9	4.9	4.8	4.8	4.7	4.6	4.5	4.5	4.4	4.3	4.3	4.2	4.1			
	24 VDC	1/3	Speed (RPM)	1960	1950	1950	1930	1920	1910	1910	1900	1900	1890	1890	1870	1850			
3073			Current (Amps)	5.1	5.5	6.1	6.9	7.7	8.6	8.9	9.2	9.8	10.1	10.5	11.5	12.8			
J75			Flow (GPM)	4.7	4.7	4.6	4.5	4.4	4.4	4.4	4.3	4.3	4.2	4.2	4.1	4.0	3.8	3.7	
	12 VDC	1/2	Speed (RPM)	1860	1850	1840	1830	1830	1830	1830	1830	1820	1820	1820	1820	1790	1770	1750	
8562			Current (Amps)	10.8	10.8	12.4	14.1	14.8	15.4	16.3	17.5	18.9	20.3	22.5	23.9	31.5	34.5	38.2	
J76			Flow (GPM)	5.1	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.5	4.5	4.4	4.3	4.1	4.0	
	24 VDC	1/2	Speed (RPM)	2020	2020	2020	2010	2000	2000	1990	1990	1980	1980	1970	1950	1940	1920	1900	
8563			Current (Amps)	5.8	5.8	6.3	6.9	7.5	8.2	8.8	9.2	9.9	10.5	11.3	12.2	15.9	17.3	18.7	

	23#	24#	25#	26#	27	Adaptor Kit
Motor Number	Spider	Coupling Half	Bracket/Adapter	Screw	Motor	Adapter Kit
	Qty. 1	Qty. 1	Qty. 1	Qty. 4	Qty. 1	Qty. 1
C81	7839	7643	7602	5916	8295	12144
C82	7839	7643	7602	5916	8295	12144
C74	7839	7643	8335	5411	2924	11331
F93	7839	7643	8335	5411	3073	11331
J75	7839	7643	8335	5411	8562	11331
J76	7839	7643	8335	5411	8563	11331

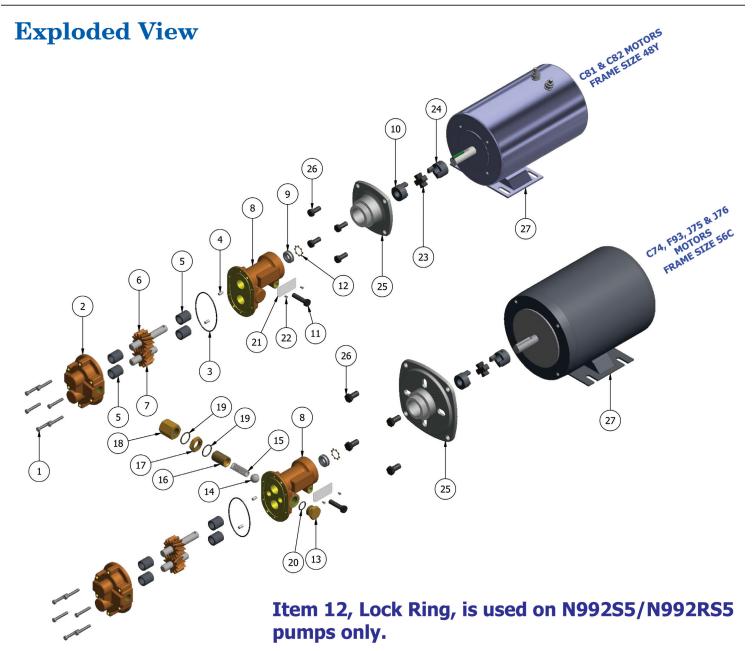
# Adapter Kits contain items 23, 24, 25 & 26

# **Parts List**

	2	3	4	5	6	7	8	9	10
Screw	Body	O-Ring	Dowel Pin	Bearing	Drive Gear Assy	ldle Gear Assy	Cover	Lip Seal	Coupling
Qty. 6	Qty. 1	Qty. 1	Qty. 2	Qty. 4	Qty. 2	Qty. 1	Qty. 1	Qty. 1	Qty. 1
7733	9306NC5N	9797-038	8885	5024	32994	32993	9308NN2N	5007	5604
7733	9306NC5N	9797-038	8885	5024	32994	32993	9308NN3B	5007	5604
7733	9306NC5N	9797-038	8885	5024	32994	32993	9308NN2N	7580	5604
7733	9306NC5N	9797-038	8885	5024	32994	32993	9308NN3B	7580	5604
	Qty. 6 7733 7733 7733 7733 7733	Qty. 6 Qty. 1   7733 9306NC5N   7733 9306NC5N   7733 9306NC5N   7733 9306NC5N   7733 9306NC5N	Qty. 6 Qty. 1 Qty. 1   7733 9306NC5N 9797-038   7733 9306NC5N 9797-038	BodyO-RingPinQty. 6Qty. 1Qty. 1Qty. 277339306NC5N9797-038888577339306NC5N9797-038888577339306NC5N9797-038888577339306NC5N9797-0388885	BodyO-RingPinBearingQty. 6Qty. 1Qty. 1Qty. 2Qty. 477339306NC5N9797-0388885502477339306NC5N9797-0388885502477339306NC5N9797-0388885502477339306NC5N9797-0388885502477339306NC5N9797-03888855024	BodyO-RingPinBearingAssyQty. 6Qty. 1Qty. 1Qty. 2Qty. 4Qty. 277339306NC5N9797-038888550243299477339306NC5N9797-038888550243299477339306NC5N9797-038888550243299477339306NC5N9797-038888550243299477339306NC5N9797-0388885502432994	Body O-Ring Pin Bearing Assy Assy   Qty. 6 Qty. 1 Qty. 1 Qty. 2 Qty. 4 Qty. 2 Qty. 1   7733 9306NC5N 9797-038 8885 5024 32994 32993   7733 9306NC5N 9797-038 8885 5024 32994 32993   7733 9306NC5N 9797-038 8885 5024 32994 32993   7733 9306NC5N 9797-038 8885 5024 32994 32993	ScrewBodyO-RingPinBearingAssyAssyCoverQty. 6Qty. 1Qty. 1Qty. 2Qty. 4Qty. 2Qty. 1Qty. 1Qty. 177339306NC5N9797-0388885502432994329939308NN2N77339306NC5N9797-0388885502432994329939308NN3B77339306NC5N9797-0388885502432994329939308NN3B77339306NC5N9797-0388885502432994329939308NN3B	ScrewBodyO-RingPinBearingAssyAssyCoverLip SealQty. 6Qty. 1Qty. 1Qty. 1Qty. 2Qty. 4Qty. 2Qty. 1Qty. 1Qty. 1Qty. 177339306NC5N9797-0388885502432994329939308NN2N500777339306NC5N9797-0388885502432994329939308NN3B500777339306NC5N9797-0388885502432994329939308NN3B758077339306NC5N9797-0388885502432994329939308NN3B7580

Repair Kits contain items 3, 5, 6, 7, 9 & 12

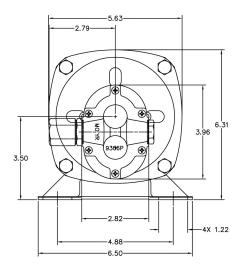


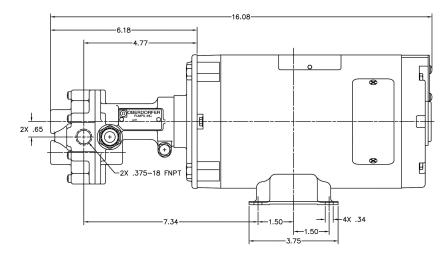


	11	12*	13	14	15	16	17	18	19	20	21	22	
	Screw	Lock Ring	Plug Nut	Ball	Spring	Adjust. Screw	Lock Nut	Nut Bypass	O-Ring	O-Ring	Name Tag	Tag Screw	Repair Kits
Model	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 1	Qty. 2	Qty. 1	Qty. 1	Qty. 2	
N992	5595	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9344	9345
N992R	5595	N/A	N/A	1838	5238	1840	5237	5240D	5239	9797-019	9797-015	9344	9345
N992S5	5595	7626	7626	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9344	9345
N992RS5	5595	7626	7626	1838	5238	1840	5237	5240D	5239	9797-019	9797-015	9344	9345

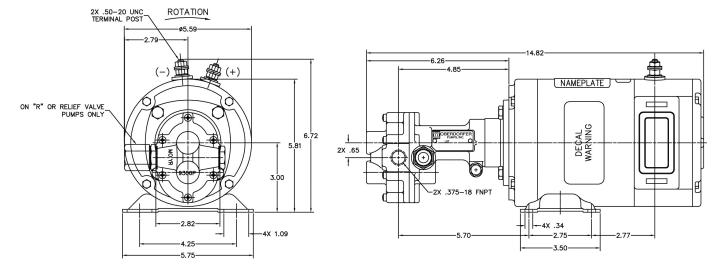
# Dimensions

N992(R)Q-J75 & N992(R)Q-J76





N992(R)-C81 & C82



Recomn	Recommended wire size and length AWG wire size and maximum length in ft.											
12 VOLT DC	11 ft.	18 ft.	28 ft.	45 ft.								
24 VOLT DC	20 ft.	34 ft.	55 ft.	87 ft.								
32 VOLT DC	35 ft.	56 ft.	91 ft.	144 ft.								

**OBERDORFER PUMPS** by Gardner Denver

5900 Firestone Drive, Syracuse, NY 13206 Phone: (800) 448-1668; (315) 437-0361 • Fax: (315) 463-9561 Visit **www.oberdorferpumps.com** to find in-depth descriptions of the world's leading high-quality, dependable pumps.

Due to ongoing product improvements, data shown here is subject to change without notice. Contact Oberdorfer Pumps for latest specifications.