



AURORA[®]

**640 SERIES
SIMPLEX AND DUPLEX
ONE STAGE VERTICAL WET PIT
SOLIDS HANDLING PUMPS**

REPAIR PARTS INDEX

NOTE! Read and understand the pump and motor instructions before attempting to install, disassemble or repair the pump.

AURORA® 640 SERIES
REPAIR PARTS INDEX

PARTS LISTED ARE FOR STANDARD PUMPS AND SOME OPTIONAL PUMP BEARINGS.

PUMP SIZE	PAGE
2 x 2 x 7	5-6
3 x 3 x 7	
2 x 2 x 9	
3 x 3 x 9	

PIECE NO.

- 22A - A ROD GUIDE IS REQUIRED ON ALL REPLACEMENT COVERS.
- 26 - STANDARD PUMP BEARING IS LISTED. REFER TO PART NUMBERS 27 THRU 37 FOR SPECIAL OPTION BEARINGS. FOR ALL PIT DEPTHS 10' AND DEEPER, A RELIEF TYPE PUMP BEARING IS STANDARD.
- 39 - ONE SET OF FOUR (4) CAPSCREWS AND NUTS REQUIRED FOR EACH GUIDE BEARING JOINT.
- 40 - ONE SUPPORT PIPE IS REQUIRED FOR PIT DEPTHS UP TO 6'0".
TWO SUPPORT PIPES ARE REQUIRED FOR PIT DEPTHS 6'-6" TO 11'-0".
THREE SUPPORT PIPES ARE REQUIRED FOR PIT DEPTHS 11'-6" TO 16'-0"
- 41 - ONE GUIDE BEARING IS REQUIRED FOR PIT DEPTHS 6'-6" TO 11'-0".
TWO GUIDE BEARINGS ARE REQUIRED FOR PIT DEPTHS 11'-6" TO 16'-0".
- 60-61 - PIT DEPTHS TO 11'-6" REQUIRED ONE SHAFT (61). PIT DEPTHS 12'-0" TO 17'-6" REQUIRES ONE PUMP SHAFT (61C), ONE HEAD SHAFT (61A) AND ONE LINE COUPLING (60).

AURORA® 640 SERIES

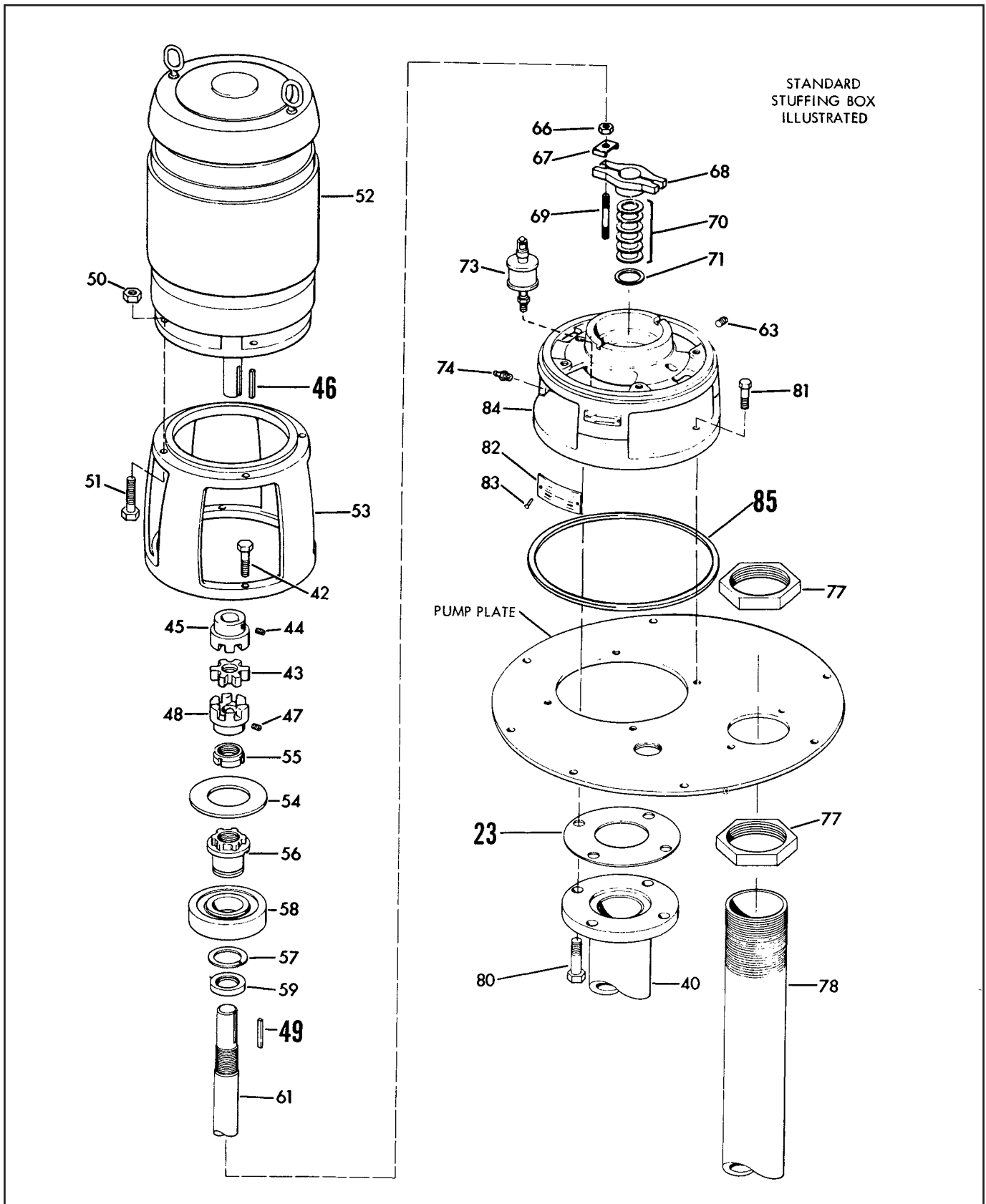
MODELS 641-642

PIECE NUMBERS

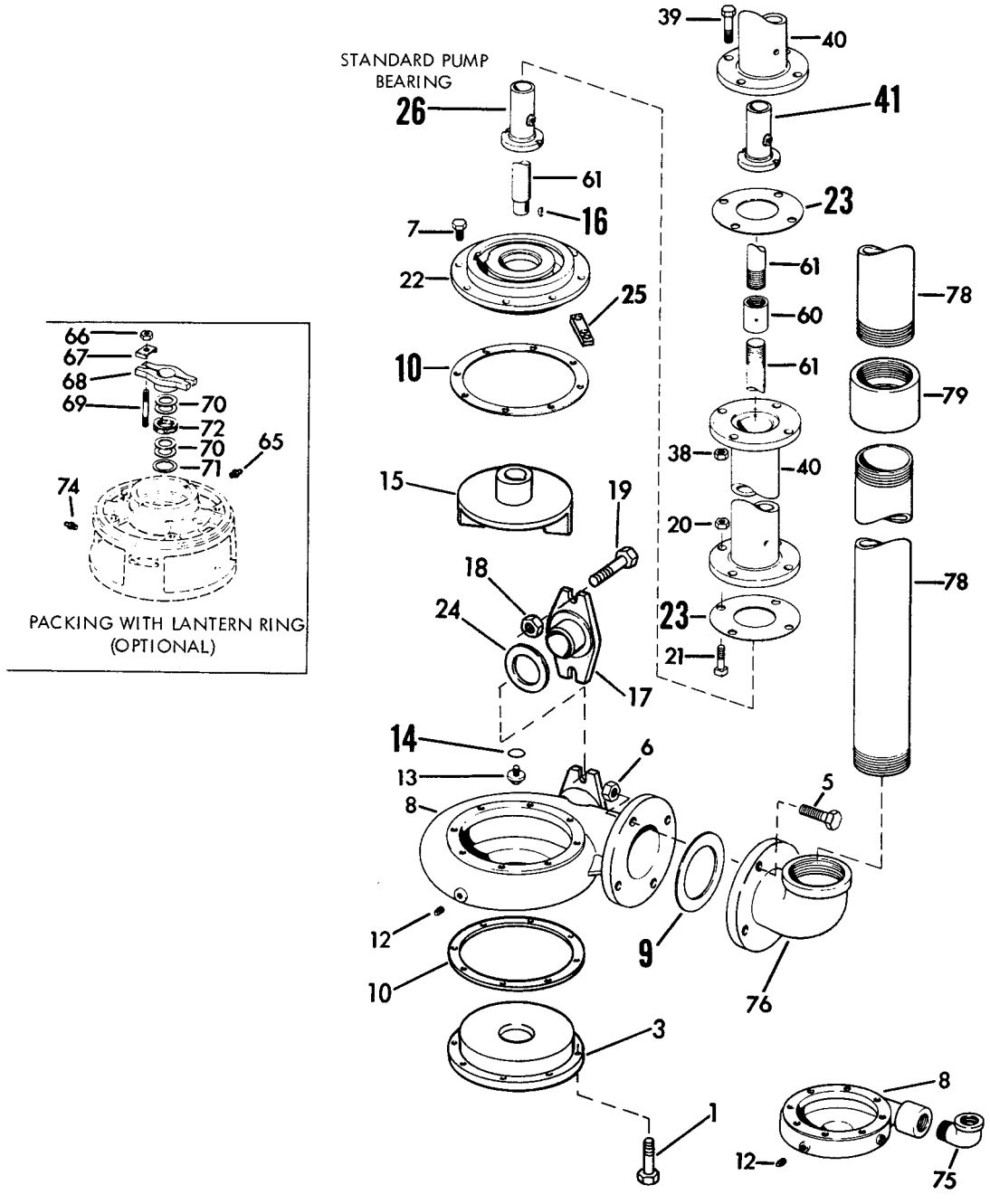
Section **640P** Page **2**

Date **JUNE 1994**

Supersedes **NOVEMBER 1988**



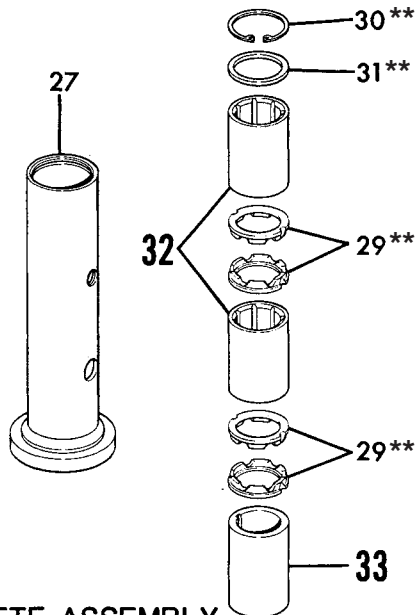
AURORA® 640 SERIES
MODELS 641-642
PIECE NUMBERS



NOTE: Recommended spare parts shown in bold face type.

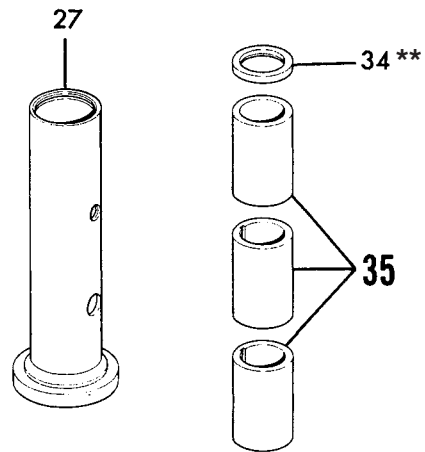
OPTIONAL RELIEF TYPE BEARINGS

CUTLESS RUBBER



27A-COMPLETE ASSEMBLY

METAL BUSHING *



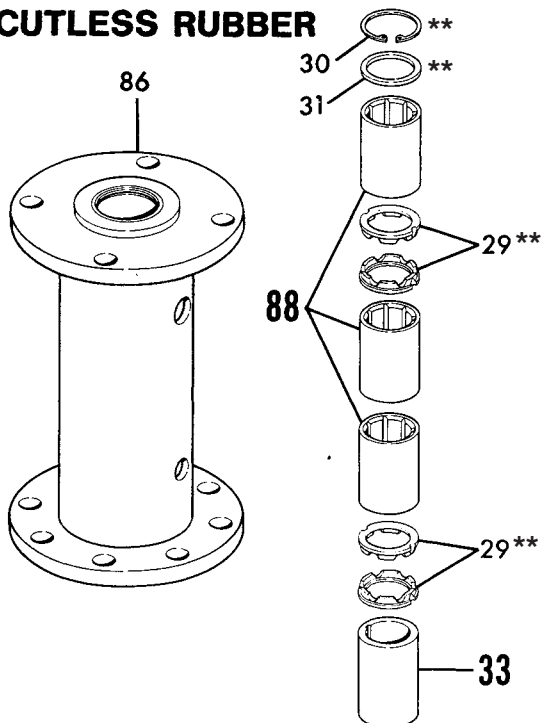
27B-COMPLETE ASSEMBLY

* Standard for pump settings over 10 feet.

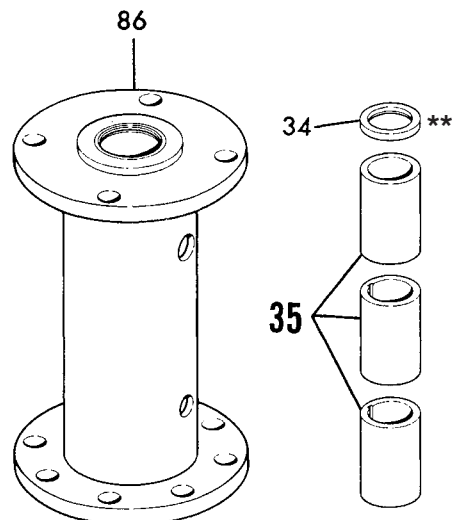
** Only used in pumps before March 1986.

OPTIONAL SPOOL TYPE BEARINGS

CUTLESS RUBBER



METAL BUSHING



AURORA® 640 SERIES
 MODELS 641-642
 2x2x7 – 3x3x7 – 2x2x9 – 3x3x9
PIECE NUMBERS

PC. NO.	DESCRIPTION	QTY	PART NO.	MATERIAL				
				B.F.	A.B.	A.I.	S.S.	
1	CAP SCREW 2x7, 3x7		NOT REQUIRED					
		2x9, 3x9	8	168-0489	080	190	080	104
	SEMI-OPEN 2x9, 3x9	8	168-0487	080	190	080	104	
2	ROD GUIDE	1	396-0010	087	190	087	104	
3	SUCTION COVER 2x7, 3x7		NOT REQUIRED					
		2x9	1	816-1185	010	208	010	104
	SEMI-OPEN 3x9	1	816-0652	010	208	010	104	
5	BOLT 2x7, 2x9		NOT REQUIRED					
		3x7	4	168-0568	087	190	087	104
		3x9	4	100-0511	087	190	087	104
6	NUT 2x7, 2x9		NOT REQUIRED					
		3x7, 3x9	4	544-0115	080	190	080	104
7	CAP SCREW 2x7, 3x7	8	168-0377	080	190	080	104	
		2x9, 3x9	8	168-0487	080	190	080	104
8	CASING 2x7	1	180-0633	010	208	010	104	
		2x9	1	180-1862	010	208	010	104
		3x7	1	180-0427	010	208	010	104
		3x9	1	180-0632	010	208	010	104
9	GASKET 2x7, 2x9		NOT REQUIRED					
		3x7, 3x9	1	364-1021	588	588	588	588
10	GASKET 2x7, 3x7	1	364-1014	603	603	603	603	
		2x9, 3x9	2	364-1015	603	603	603	603
12	PLUG	3	600-0002	087	190	087	104	
13	IMPELLER NUT	1	544-0039	104	104	104	104	
15	ENCLOSED IMPELLER	2x7	1	443-1871	010	208	010	104
		2x9	1	443-2221	010	208	010	104
		3x7	1	443-2290	010	208	010	104
		SEMI-OPEN 3x9	1	443-1873	010	208	010	104
16	IMPELLER KEY	1	472-0010	087	104	087	104	
17	H.H. COVER 2x7, 2x9		NOT REQUIRED					
		3x7	1	260-0098	010	208	010	104
		3x9	1	260-0101	010	208	010	104
18	NUT 2x7, 2x9		NOT REQUIRED					
		3x7	2	544-0113	080	190	080	104
		3x9	2	544-0109	080	190	080	104
19	CAP SCREW 2x7, 2x9		NOT REQUIRED					
		3x7	2	168-0494	080	190	080	104
		3x9	2	168-0390	080	190	080	104
20	NUT	4	544-0115	080	190	080	104	
21	BOLT 2x7, 2x9	4	100-0507	087	190	087	104	
		3x7, 3x9	4	100-0511	087	190	087	104
22	COVER 2x7, 3x7	1	260-0012	010	208	010	104	
		2x9, 3x9	1	260-0013	010	208	010	104
23	GASKET		364-1021	588	588	588	588	
24	GASKET 2x7, 2x9		NOT REQUIRED					
		3x7, 3x9	1	364-1041	453	453	453	453
25	WASHER 2x7, 2x9		NOT REQUIRED					
		3x7	4	908-0114	080	190	080	104
		3x9	4	908-0112	080	190	080	104
26	PUMP BEARING	1	136-1405	208	208	010		
27	BEARING HOUSING	1	260-0701	087	208	087	104	

PC. NO.	DESCRIPTION	QTY	PART NO.	MATERIAL			
				B.F.	A.B.	A.I.	S.S.
OPTIONAL RELIEF TYPE BEARINGS – COMPLETE ASSY. BEFORE MARCH 1986							
27A	CUTLESS RUBBER	1	032-0679	NOT AVAILABLE			
27B	METAL BUSHING	1	032-0681	USE NEW DESIGN			
29	LANTERN RING	2	676-1680	512	512	512	512
30	SNAP RING	1	676-0220	088	104	088	104
31	RETAINING RING	1	676-1996	079	190	079	104
32	BUSHING	2	136-1378	457	457	457	457
33	BUSHING	1	136-1173	208	208	010	104
34	SEAL	1	712-0069	653	653	653	
35	BUSHING	3	136-1173	208	208	010	
OPTIONAL RELIEF TYPE BEARINGS – COMPLETE ASSY. AFTER MARCH 1986							
27A	CUTLESS RUBBER	1	032-1423	644	643	642	646
27B	METAL BUSHING	1	032-1427	644	643	642	
32	BUSHING	2	136-1616	486	486	487	487
33	BUSHING	1	136-1173	208	208	010	104
35	BUSHING	3	136-1173	208	208	010	
38	NUT	4	544-0115	080	190	080	104
39	CAP SCREW	4	168-0564	080	190	080	104
40	SUPPORT PIPE		REFER TO FACTORY				
41	GUIDE BEARING		136-1405	208	208	010	

AURORA® 640 SERIES
MODELS 641-642
2x2x7 – 3x3x7 – 2x2x9 – 3x3x9

Section **640P** Page **6**
 Date **DECEMBER 2014**
 Supersedes **JUNE 1994**

PIECE NUMBERS

PC. NO.	DESCRIPTION	QTY	PART NO.	MATERIAL				
				B.F.	A.B.	A.I.	S.S.	
42	CAP SCREW	4	168-0388	080	080	080	080	
43	COUPLING INSERT		REFER TO SECTION 1000P					
44	SETSCREW		INCLUDED WITH NO. 45					
45	COUPLING HALF		REFER TO SECTION 1000P					
46	COUPLING KEY		REFER TO FACTORY					
47	SETSCREW		INCLUDED WITH NO. 48					
48	COUPLING HALF		REFER TO SECTION 1000P					
49	COUPLING KEY	1	472-0250	087	087	087	087	
50	NUT		REFER TO FACTORY					
51	CAP SCREW		REFER TO FACTORY					
52	MOTOR		REFER TO FACTORY					
53	UPPER HEAD	1	116-0346	010	010	010	010	
54	SLINGER	1	764-0401	478	478	478	478	
55	LOCKNUT	1	544-1107	080	080	080	080	
56	BEARING COLLAR	1	224-0162	208	208	208	208	
57	RETAINING RING	1	676-0289	088	088	088	088	
58	BALL BEARING	1	068-2023	647	647	647	647	
59	GREASE SEAL	1	712-0144	653	653	653	653	
69	COUPLING	1	256-2013	062	104	062	104	
61	SHAFT		REFER TO FACTORY					
61A	HEAD SHAFT		REFER TO FACTORY					
61B	LINE SHAFT		REFER TO FACTORY					
61C	PUMP SHAFT		REFER TO FACTORY					
62	SLINGER	1	764-1005	478	478	478	478	
63	PLUG	1	600-0002	087	190	087	104	
64	OIL SEAL	2	712-0069	653	653	653	653	
65	GREASE FITTING	1	508-0002	651	651	651	651	
66	NUT	2	544-0109	080	190	080	104	
67	CLAMP	2	204-0120	360	190	360	104	
68	GLAND	1	372-0219	010	208	010	104	
69	STUD	2	808-0114	082	082	082	104	
70	PACKING	3	564-0120	802	802	802	802	
71	RING	1	676-1231	190	190	087	104	
72	LANTERN RING	1	676-1680	512	512	512	512	
73	OILER	1	552-0102	652	652	652	652	
74	GREASE FITTING	1	508-0002	651	651	651	651	
75	ELBOW	2x7, 2x9	1	600-0210	387	190	387	104
		3x7, 3x9		NOT REQUIRED				
76	ELBOW	2x7, 2x9		NOT REQUIRED				
		3x7, 3x9	1	300-0011	010	208	010	104

PC. NO.	DESCRIPTION	QTY	PART NO.	MATERIAL				
				B.F.	A.B.	A.I.	S.S.	
77	LOCKNUT	2x7, 2x9	2	544-0958	028	190	028	104
		3x7, 3x9	2	544-0960	028	190	028	104
78	DISCHARGE PIPE		REFER TO FACTORY					
79	COUPLING		REFER TO FACTORY					
80	CAP SCREW	4	168-0562	080	080	080	080	
81	CAP SCREW	4	168-0388	080	080	080	080	
82	NAMEPLATE	1	532-0045	114	114	114	114	
83	DRIVE SCREW	2	708-0013	365	365	365	365	
84	LOWER HEAD	1	116-0439	010	010	010	010	
		1	116-0440	010	010	010	010	
		4	168-0378	080	080	080	080	
85	GASKET	1	364-1254	481	481	481	481	
BEFORE MARCH 1986								
86	SPOOL HOUSING	1	260-0726	087	087	087	104	
88	BUSHING	3	136-1378	457	457	457	457	
AFTER MARCH 1986								
86	SPOOL HOUSING	1	260-0726	087	087	087	104	
88	BUSHING	3	136-1616	486	486	487	487	
PARTS NOT SHOWN ON EXPLODED VIEW								
	FLOAT ROD			REFER TO SECTION 1020P FOR FLOAT SWITCH ASSY.				
	FLOAT STOP							
	FLOAT							

WARRANTY

Seller warrants equipment (and its component parts) of its own manufacture against defects in materials and workmanship under normal use and service for one (1) year from the date of installation or start-up, or for eighteen (18) months after the date of shipment, whichever occurs first. Seller does not warrant accessories or components that are not manufactured by Seller; however, to the extent possible, Seller agrees to assign to Buyer its rights under the original manufacturer's warranty, without recourse to Seller. Buyer must give Seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the serial number, the type of equipment, and the date of purchase) within thirty (30) days of the discovery of such defect during the warranty period. No claim made more than 30 days after the expiration of the warranty period shall be valid. Guarantees of performance and warranties are based on the use of original equipment manufactured (OEM) replacement parts. Seller assumes no responsibility or liability if alterations, non-authorized design modifications and/or non-OEM replacement parts are incorporated. If requested by Seller, any equipment (or its component parts) must be promptly returned to Seller prior to any attempted repair, or sent to an authorized service station designated by Seller, and Buyer shall prepay all shipping expenses. Seller shall not be liable for any loss or damage to goods in transit, nor will any warranty claim be valid unless the returned goods are received intact and undamaged as a result of shipment. Repaired or replaced material returned to customer will be shipped F.O.B., Seller's factory. Seller will not give Buyer credit for parts or equipment returned to Seller, and will not accept delivery of any such parts or equipment, unless Buyer has obtained Seller's approval in writing. The warranty extends to repaired or replaced parts of Seller's manufacture for ninety (90) days or for the remainder of the original warranty period applicable to the equipment or parts being repaired or replaced, whichever is greater. This warranty applies to the repaired or replaced part and is not extended to the product or any other component of the product being repaired. Repair parts of its own manufacture sold after the original warranty period are warranted for a period of one (1) year from shipment against defects in materials and workmanship under normal use and service. This warranty applies to the replacement part only and is not extended to the product or any other component of the product being repaired. Seller may substitute new equipment or improve part(s) of any equipment judged defective without further liability. All repairs or services performed by Seller, which are not covered by this warranty, will be charged in accordance with Seller's standard prices then in effect.

THIS WARRANTY IS THE SOLE WARRANTY OF SELLER AND SELLER HEREBY EXPRESSLY DISCLAIMS AND BUYER WAIVES ALL OTHER WARRANTIES EXPRESSED, IMPLIED IN LAW OR IMPLIED IN FACT, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seller's sole obligation under this warranty shall be, at its option, to repair or replace any equipment (or its component parts) which has a defect covered by this warranty, or to refund the purchase price of such equipment or part. Under the terms of this warranty, Seller shall not be liable for (a) consequential, collateral, special or liquidated losses or damages; (b) equipment conditions caused by normal wear and tear, abnormal conditions of use, accident, neglect, or misuse of said equipment; (c) the expense of, and loss or damage caused by, repairs or alterations made by anyone other than the Seller; (d) damage caused by abrasive materials, chemicals, scale deposits, corrosion, lightning, improper voltage, mishandling, or other similar conditions; (e) any loss, damage, or expense relating to or resulting from installation, removal or reinstallation of equipment; (f) any labor costs or charges incurred in repairing or replacing defective equipment or parts, including the cost of reinstalling parts that are repaired or replaced by Seller; (g) any expense of shipment of equipment or repaired or replacement parts; or (h) any other loss, damage or expense of any nature.

The above warranty shall not apply to any equipment which may be separately covered by any alternate or special warranties.

PERFORMANCE: In the absence of Certified Pump Performance Tests, equipment performance is not warranted or guaranteed. Performance curves and other information submitted to Buyer are approximate and no warranty or guarantee shall be deemed to arise as a result of such submittal. All testing shall be done in accordance with Seller's standard policy under Hydraulic Institute procedures.

LIABILITY LIMITATIONS: Under no circumstances shall the Seller have any liability under the Order or otherwise for liquidated damages or for collateral, consequential or special damages or for loss of profits, or for actual losses or for loss of production or progress of construction, regardless of the cause of such damages or losses. In any event, Seller's aggregate total liability under the Order or otherwise shall not exceed the contract price.

ACTS OF GOD: Seller shall in no event be liable for delays in delivery of the equipment or other failures to perform caused by fires, acts of God, strikes, labor difficulties, acts of governmental or military authorities, delays in transportation or procuring materials, or causes of any kind beyond Seller's control.

COMPLIANCE WITH LAW: Seller agrees to comply with all United States laws and regulations applicable to the manufacturing of the subject equipment. Such compliance shall include: The Fair Labor Standards Acts of 1938, as amended; Equal Employment Opportunity clauses of Executive Order 11246, as amended; Occupational Safety and Health Act of 1970 and the standards promulgated thereunder, if applicable. Since compliance with the various Federal, State, and Local laws and regulations concerning occupational health and safety, pollution or local codes are affected by the use, installation and operation of the equipment and other matters over which Seller has no control, Seller assumes no responsibility for compliance with those laws and regulations, whether by way of indemnity, warranty, or otherwise. It is incumbent upon the Buyer to specify equipment which complies with local codes and ordinances.



AURORA®

800 Airport Road
North Aurora, Illinois 60542
630-859-7000
www.aurorapump.com