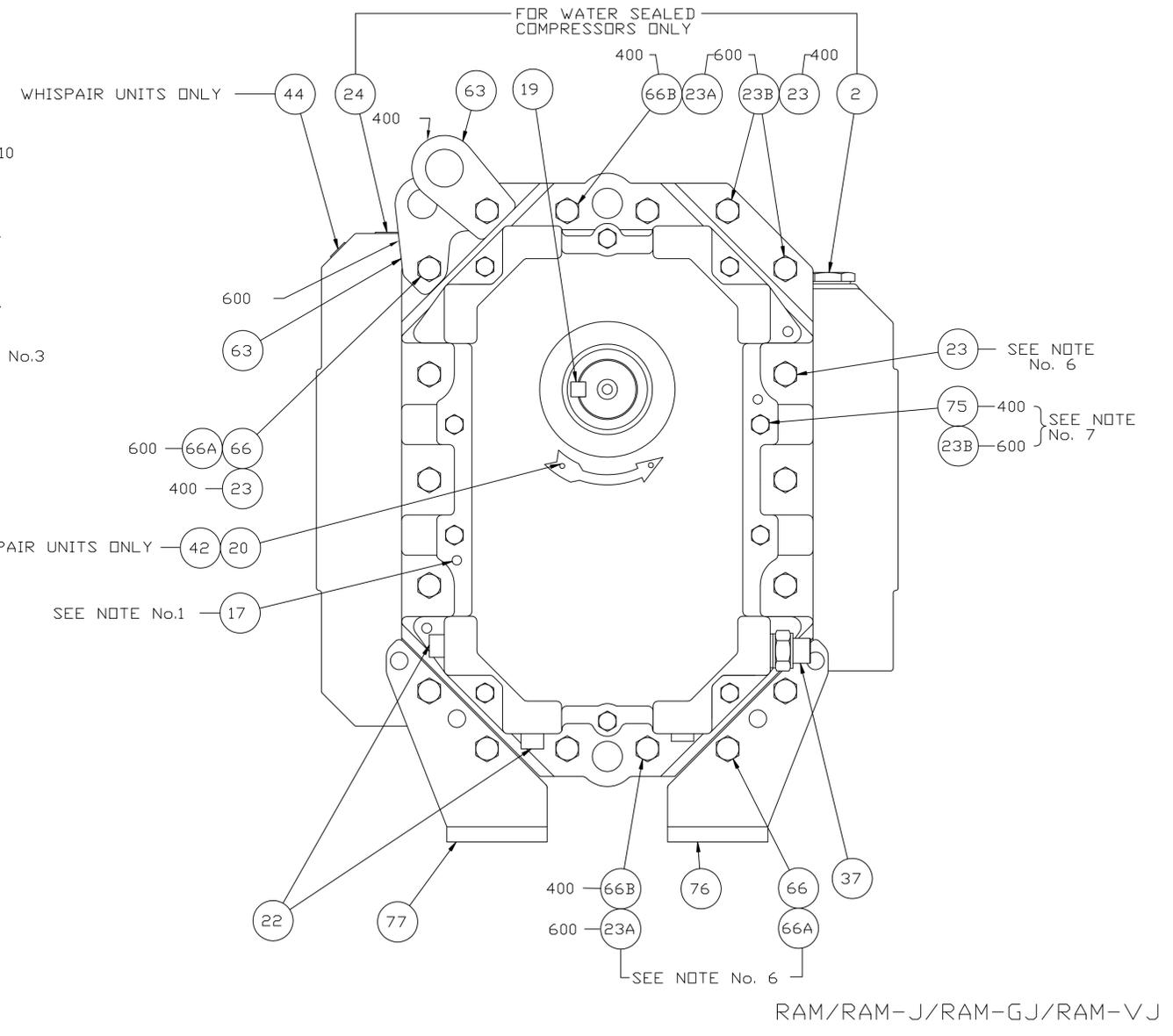
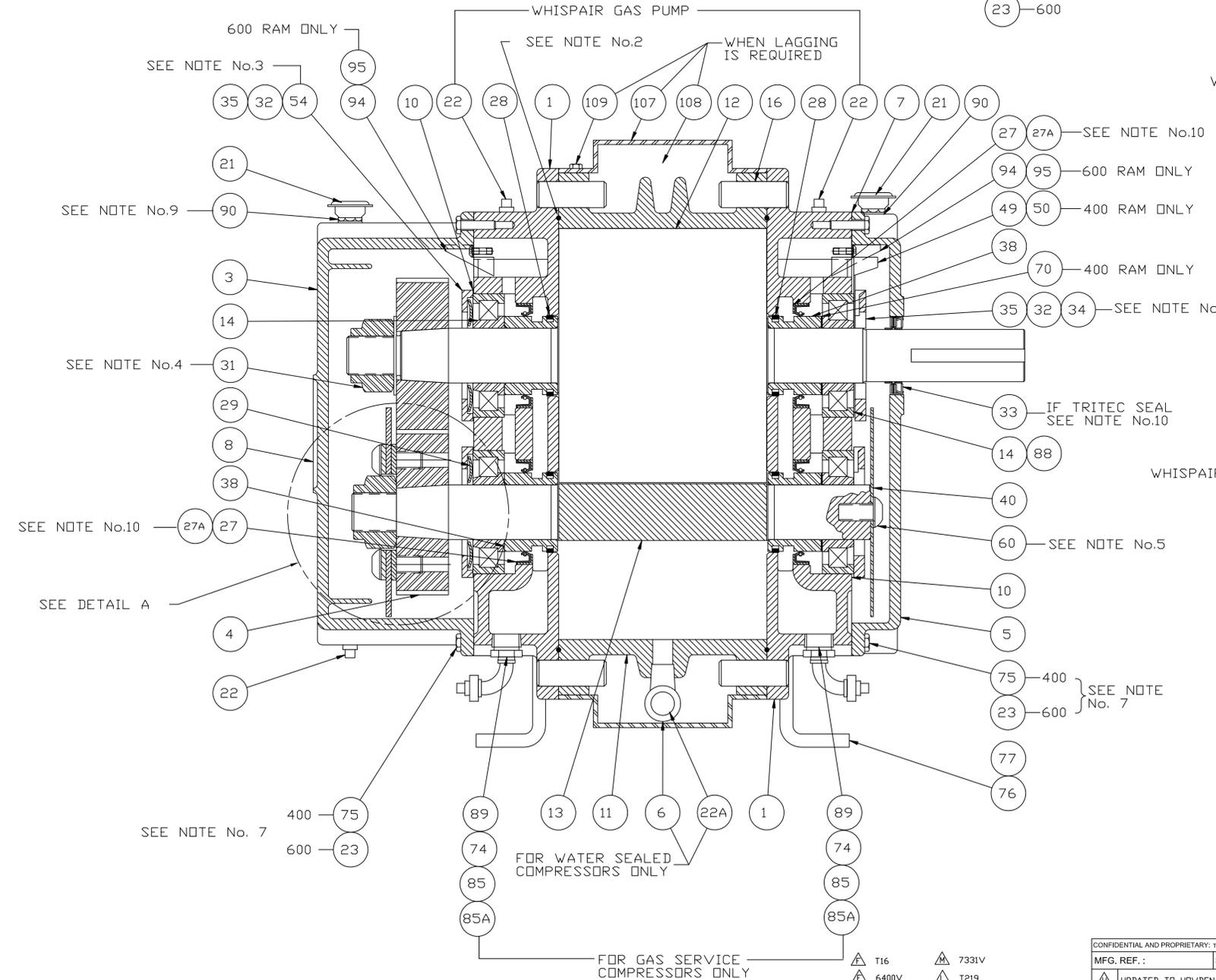
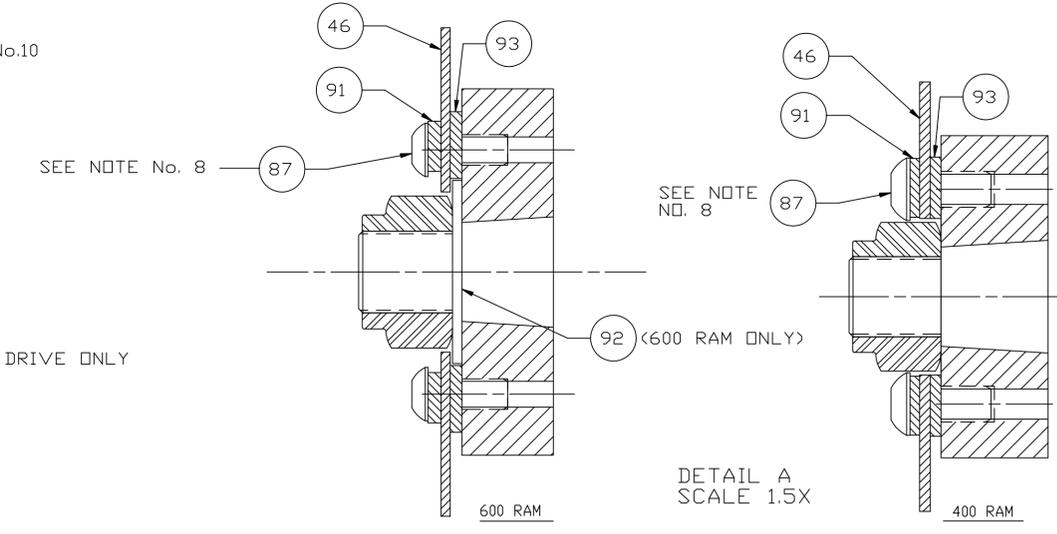
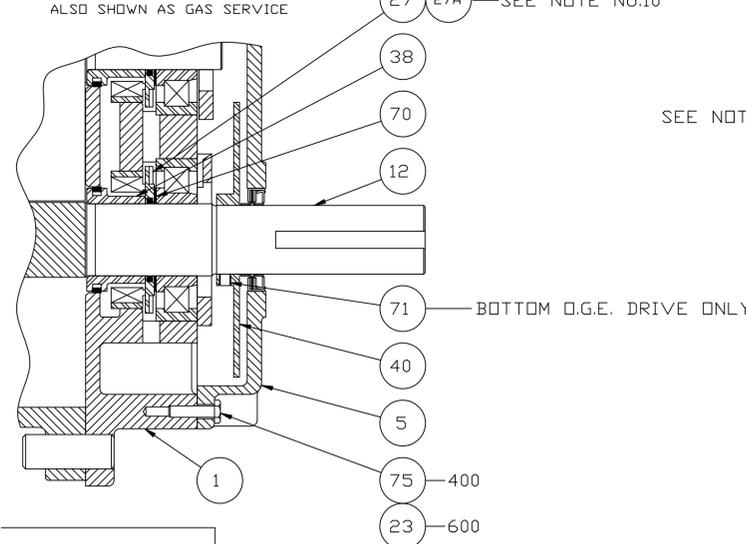


NOTES:

1. DRIVE END COVER TO BE PINNED TO HEADPLATE AFTER ALIGNING SEAL BORE WITH SHAFT WITHIN .001
2. USE TEFLON SEALANT ON ALL PIPE THREADS & CYLINDER TO HEADPLATE FLANGE FOR WHISPAIR GAS PUMP UNITS ONLY.
3. ITEMS 34 & 54 MUST BE INSTALLED WITH OIL GROOVE AT TOP.
4. TORQUE TO 400 FT.LBS.-400  
TORQUE TO 630 FT.LBS.-600
5. TORQUE TO 75 FT.LBS.-400  
TORQUE TO 140 FT.LBS.-600  
APPLY LOCKTITE TO SCREW THREADS & BOTH FACES OF WASHER & SLINGER.
6. TORQUE TO 35 FT.LBS. (HEADPLATE)
7. TORQUE TO 10 FT.LBS. (GEARBOX/END COVER)
8. LOCKTIGHT AND TORQUE TO FT.LBS.-75
9. TWO 1/2 X 3/4 BUSHINGS FOR BREATHERS ON 600 RAM SERIES ONLY
10. INSTALL PER ROTATION

**BOTTOM DRIVE OPTION**  
ALSO SHOWN AS GAS SERVICE



RAM/RAM-J/RAM-GJ/RAM-VJ

T16	7331V
6400V	T219
5964V	K194
5767V	T52
5560V	T22
5048V	T43
	7591V
	7450V
	7412V
	7331V

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MFG. REF.:	SPEC SECTION:	ENGINEER CO.:	MATL.:	PATT. No.:	GEOMETRIC TOLERANCE PER: EPI98	ORDER No.:
UPDATED TO HOWDEN BRANDING	MPM 1/11/16 16916V	MNM	DR. NEP 11/26/96	T1	DO NOT SCALE FOR DIMENSIONS	
ADDED ITEM 27A AND NOTE NO. 10A	JJ 9/25/09 10781V	RDA	CHKD.BMS 11/26/96	T1	ALL DIMENSIONS SHOWN IN PARENTS TO USE MILLIMETERS	
BOT. DRIVE OPTION SLINGER REVERSED	DAB 7/18/07 8203V	RDA	APP. RDA 11/27/96		ANCHOR BOLT LOCATIONS T1, T2	
REVISED GEAR END SLINGERS	AKP 1/20/06 7654V	RDA	DBV. NEP 11/28/96		ANCHOR BOLT LOCATIONS T1, T2	
REVISIONS	BY DATE DATE CHANGE NOTICE	CHKD APP	CAD FORMAT AUTO CAD	CAD FILE / DIRECTORY 81881A23 / XASR	SCALE 6"=1'-0"	DATE MIDY

**SECTIONAL ASSEMBLY**  
400/600 RAM

81881023  
SHEET 1 OF 1

Howden  
Connersville, IN USA  
P: 765-827-9200 F: 765-827-9266

REV U

**RAM, RAM-J Series Parts List -4" and 6"  
Gear Diameter** (Refer to drawing #81881023)

Item #	Part Name	Qty.
1	Headplate	2
3	Gearbox	1
4	Timing Gears	2
5	End Cover	1
7	Gasket – Gearbox/Cover	2
10	Shims	Lot
11	Cylinder	1
12	Impeller & Shaft Drive	1
13	Impeller & Shaft Driven	1
14	Bearing Roller	4
16	Pin, Dowel (Pull Out)	4
17	Pin, Dowel	2
19	Key Square	1
21	Breather	2
22	Plug, Pipe	12
23	Screw, Cap Hex Hd.	**
27	Seal, lip headplate	4
28	Piston, Ring-Seal	4
29	Washer, Wavy Spring	2
31	Gear Nut	2
32	Scr, Cap Hex Hd.	16
33	Seal, Lip Drive	1
34	Brg. Clamp Plate - D. E.	2
35	Lock Washer - Spring	16
37	Sight Plug - Oil Level	2
38	Sleeve, Shaft	4
40	Slinger - D.E. (Top Drive)	1
46	Slinger - G.E.	1
49	Oil Leader L/S	1
50	Oil, Leader-R/S	1
54	Brg Clamp Plate - G. E.	2
60	Screw, Cap Butt. HD.	1
64	Pin, Spring	1
66	Screw, Cap Hex HD.	**
66.1	WHISPAIR, Spring Lock 3/8M	**
70	Shims D.E. Brg.	1
75	Screw, Cap - Hex HD.	**
76	Blower Foot - RH	2
77	Blower Foot - LH	2
85	Elb, Pipe-Black	2
85.1	Plug, Pipe	2
87	Scr, Cap BH	2
88	Anti Rotation Ball	4
90	BSHG-RDCG	2
91	Washer, Plain Flat	2
92	Washer, Plain Flat	2
93	Washer	2
94	Oil Leader	2
95	Cap Screw	4

\*\* Quantity varies by blower

**RAM series parts list 4" & 6" gear diameter for  
Gas, DVJ, DPJ & JV**

(Refer to drawing #81881023)

Item Number	Part Name	Quantity
1	Headplate	2
2	Spray nozzle assembly	1
3	Gearbox	1
4	Timing Gears	2
5	End Cover	1
7	Gasket – Gearbox/Cover	2
10	Shims	Lot
11	Cylinder	1
12	Impeller & Shaft Drive	1
13	Impeller & Shaft Driven	1
14	Bearing Roller	4
16	Pin, Dowel (Pull Out)	4
17	Pin, Dowel	2
19	Key Square	1
21	Plug - Vent	2
22	Plug, Pipe	12
23	Screw, Cap Hex Hd.	**
27	Seal, Lip Headplate DVJ, DPJ, JV	4
27	Seal-Mech-Viton Gas	4
28	Piston, Ring-Seal	4
29	Washer, Wavy Spring	2
31	Gear Nut	2
32	Scr, Cap Hex Hd.	16
33	Seal, Lip Drive	1
34	Brg. Clamp Plate - D. E.	2
35	Lock Washer - Spring	16
37	Oil Level Gauge	2
38	Sleeve, Shaft DVJ, DPJ, JV	4
38	Sleeve - Gas	4
40	Slinger - D.E. (Top Drive)	1
46	Slinger - G.E.	1
49	Oil Leader L/S	1
50	Oil, Leader-R/S	1
54	Brg Clamp Plate - G. E.	2
60	Screw, Cap Butt. HD.	1
64	Pin, Spring	1
66	Screw, Cap Hex HD.	**
66.1	Whispair, Spring Lock 3/8M	**
70	Shims D.E. Brg.	1
75	Screw, Cap - Hex HD.	**
76	Blower Foot - RH	2
77	Blower Foot - LH	2
85	Elb, Pipe-Black	2
85.1	Plug, Pipe	2
87	Scr, Cap BH	2
88	Anti Rotation Ball	4
90	BSHG-RDCG	2
91	Washer, Plain Flat	2
92	Washer, Plain Flat	2
93	Washer	2
94	Oil Leader	2
95	Cap Screw	4

\*\*Quantities vary by blower.