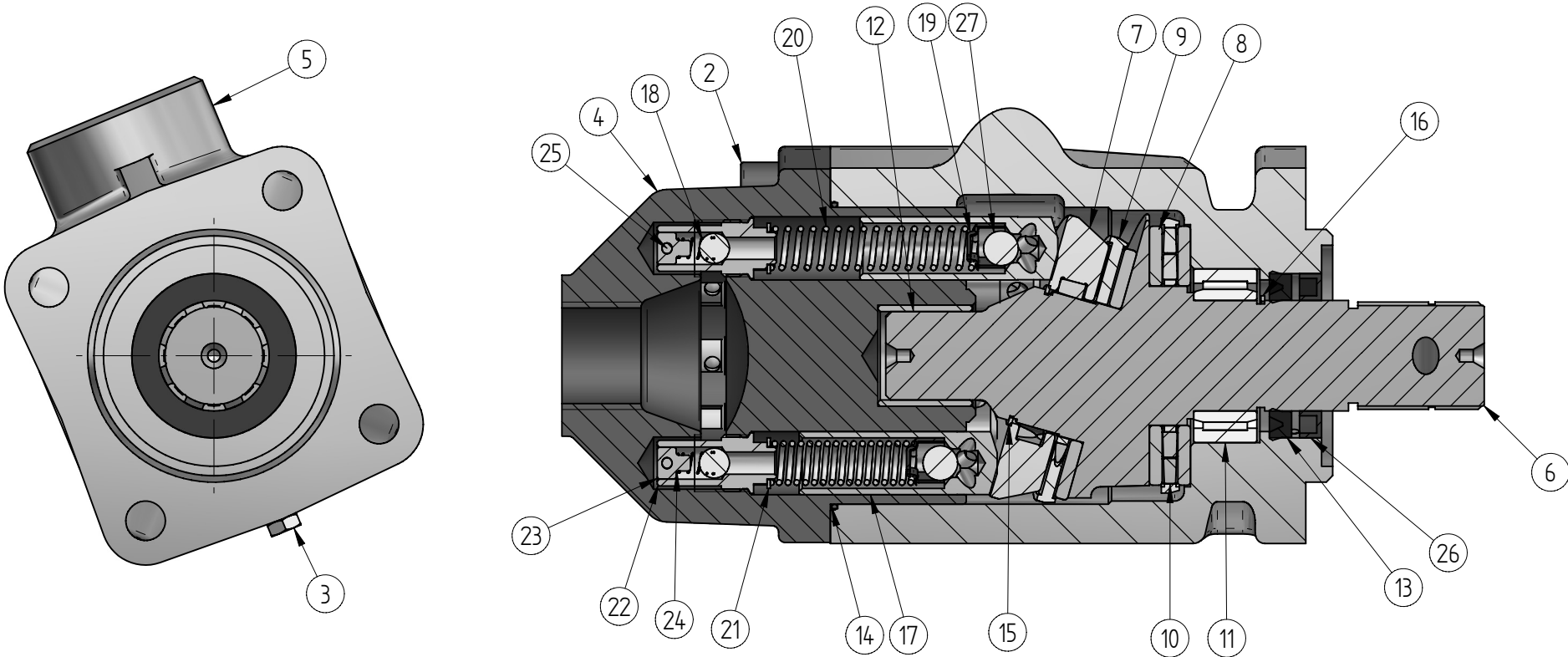


REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	
			SCALE:	WEIGHT:
			SHEET 1 OF 9	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

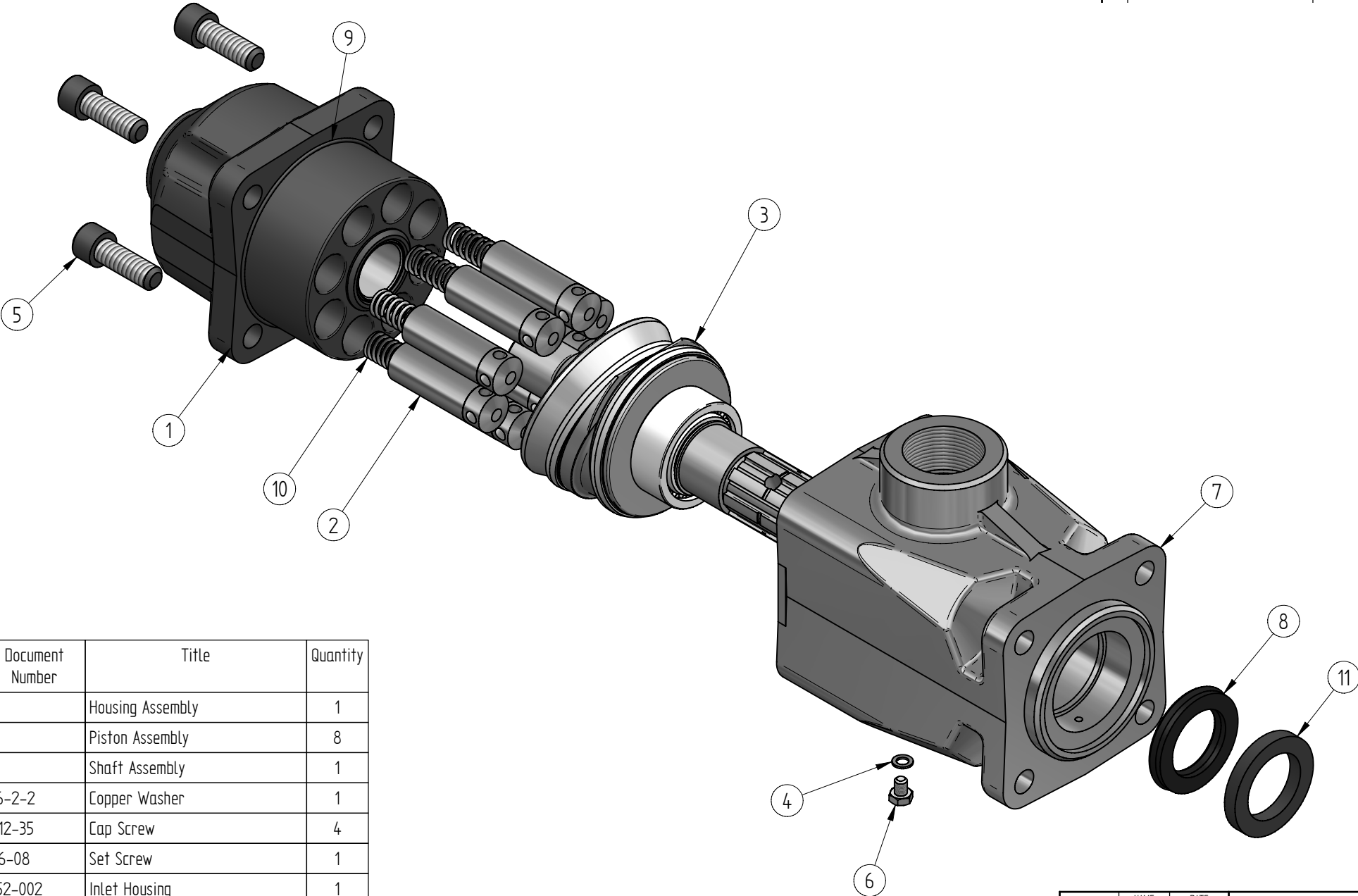


SECTION A-A

Item Number	Document Number	Title	Quantity	Item Number	Document Number	Title	Quantity
1*	D6-2-2	Copper Washer	1	15	P52-010	Snap Ring 42 Shaft	1
2	M12-35	Cap Screw	4	16	P52-011	Snap Ring 35 Shaft	1
3	M6-08	Set Screw	1	17	P52-012	Piston	8
4	P52-001	Housing	1	18	P52-013	Steel Ball Dia 9.525	8
5	P52-002	Inlet Housing	1	19	P52-014	Piston Ball Retaining Clip	8
6	P52-003	Pump Shaft	1	20	P52-015	Piston Spring	8
7	P52-004-1	Roller Bearing Housing	1	21	P52-016	Dia10 Washer	8
8	P52-004-3	Thrust Washer	3	22	P52-017	Check Valve Housing	8
9	P52-004-4	Thrust Bearing Cage	2	23	P52-019	Check Valve Ball Stopper	8
10	P52-004-5	Cyl Roller 5-8	102	24	P52-020	Check Valve Spring	8
11	P52-006	Bearing NA 4907	1	25	P52-021	Dia3 Sel lock Pin	8
12	P52-007	PAP 2830 P10	1	26	P52-022	OIL SEAL 35,52,7	1
13	P52-008	Shaft Seal 35,52,7	1	27	P52-023	Steel Ball Dia 11	8
14	P52-009	O-Ring 2-043	1				

	NAME	DATE	PREMAC		
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.		
APPROVED			TITLE		
MATERIAL			P52 PTO PUMP		
TREATMENT					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 1:10 SCALE			SIZE A2	DWG NO	REV.
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft		
SCALE:		WEIGHT:	SHEET 2 OF 9		

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

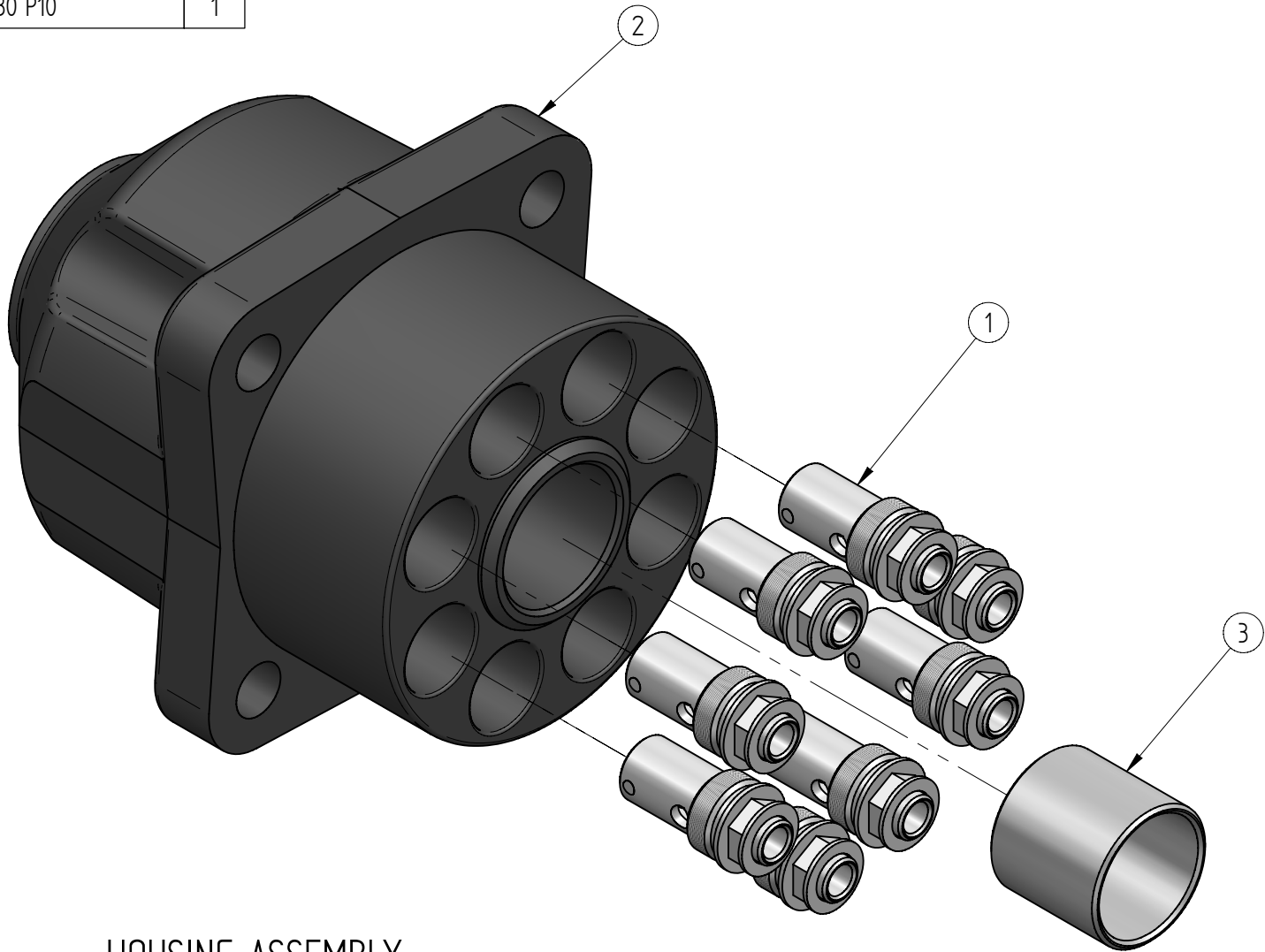


Item Number	Document Number	Title	Quantity
1		Housing Assembly	1
2		Piston Assembly	8
3		Shaft Assembly	1
4	D6-2-2	Copper Washer	1
5	M12-35	Cap Screw	4
6	M6-08	Set Screw	1
7	P52-002	Inlet Housing	1
8	P52-008	Shaft Seal 35,52,7	1
9	P52-009	O-Ring 2-043	1
10	P52-015	Piston Spring	8
11	P52-022	OIL SEAL 35,52,7	1

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
1:10 SCALE 2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	REV.
SCALE:		WEIGHT:	SHEET 3 OF 9	

Item Number	Document Number	Title	Quantity
1		Check Valve Assembly	8
2	P52-001	Housing	1
3	P52-007	PAP 2830 P10	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

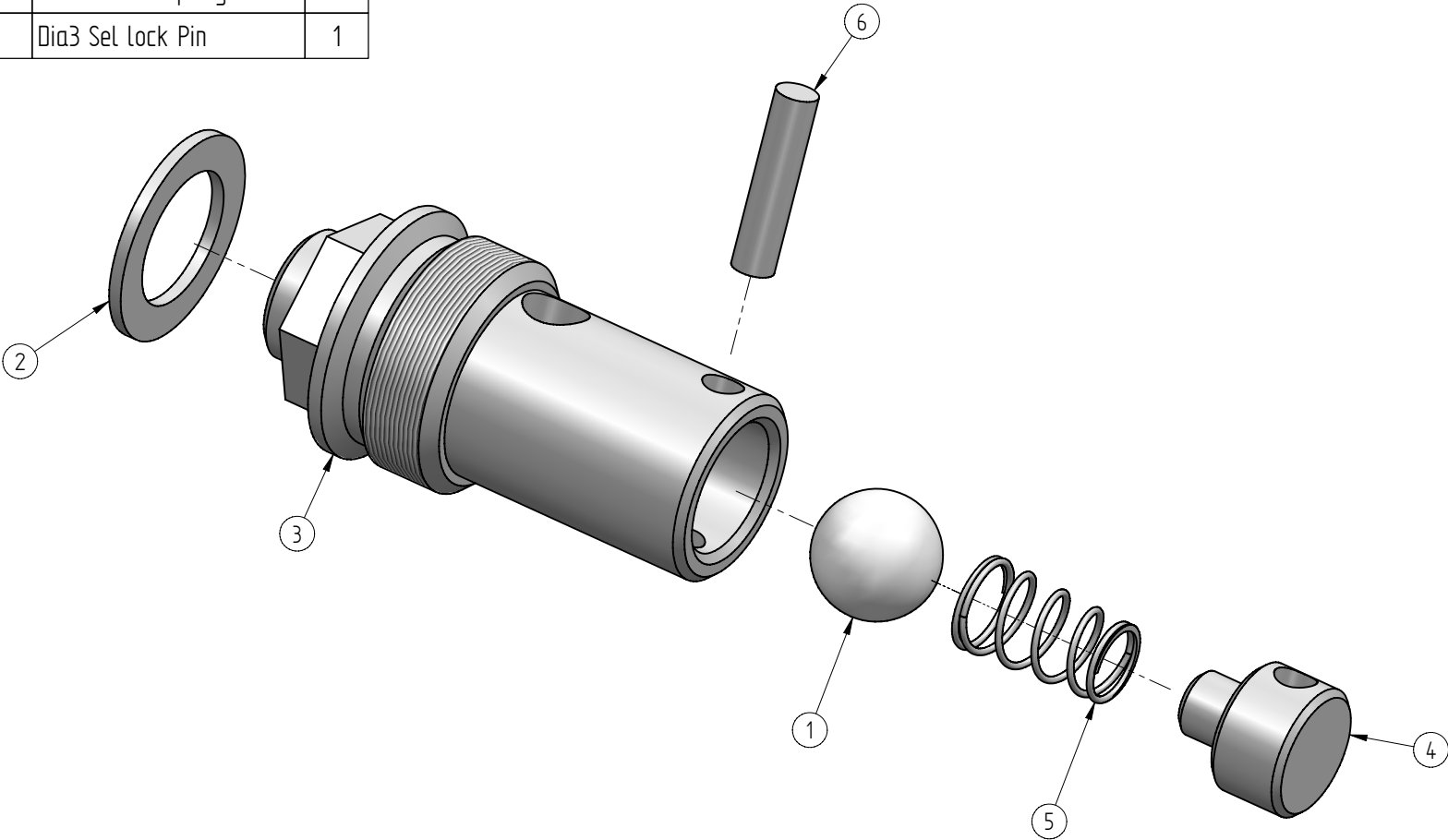


HOUSING ASSEMBLY

	NAME	DATE	PREMAC		
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY) LTD.		
APPROVED			TITLE		
MATERIAL			P52 PTO PUMP		
TREATMENT					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1° 1:10 SCALE			SIZE A2	DWG NO	REV.
			FILE NAME: PTO Pump.dft		
2 PL ±0.02 3 PL ±0.005			SCALE:	WEIGHT:	SHEET 4 OF 9

Item Number	Document Number	Title	Quantity
1	P52-013	Steel Ball Dia 9.525	1
2	P52-016	Dia10 Washer	1
3	P52-017	Check Valve Housing	1
4	P52-019	Check Valve Ball Stopper	1
5	P52-020	Check Valve Spring	1
6	P52-021	Dia3 Sel lock Pin	1

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

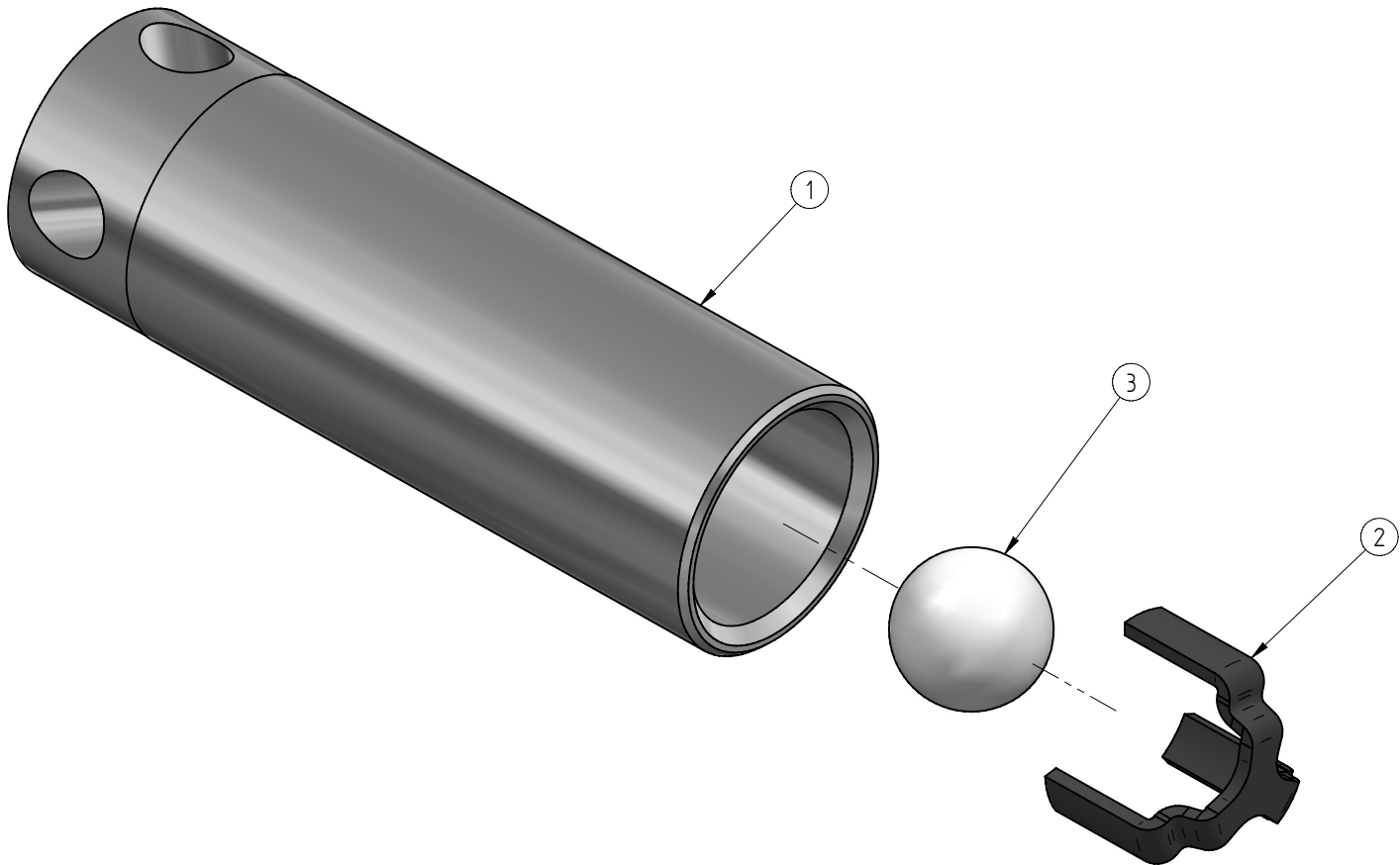


CHECK VALVE ASSEMBLY

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	
			SCALE:	WEIGHT:
			SHEET 5 OF 9	

Item Number	Document Number	Title	Quantity
1	P52-012	Piston	1
2	P52-014	Piston Ball Retaining Clip	1
3	P52-023	Steel Ball Dia 11	1

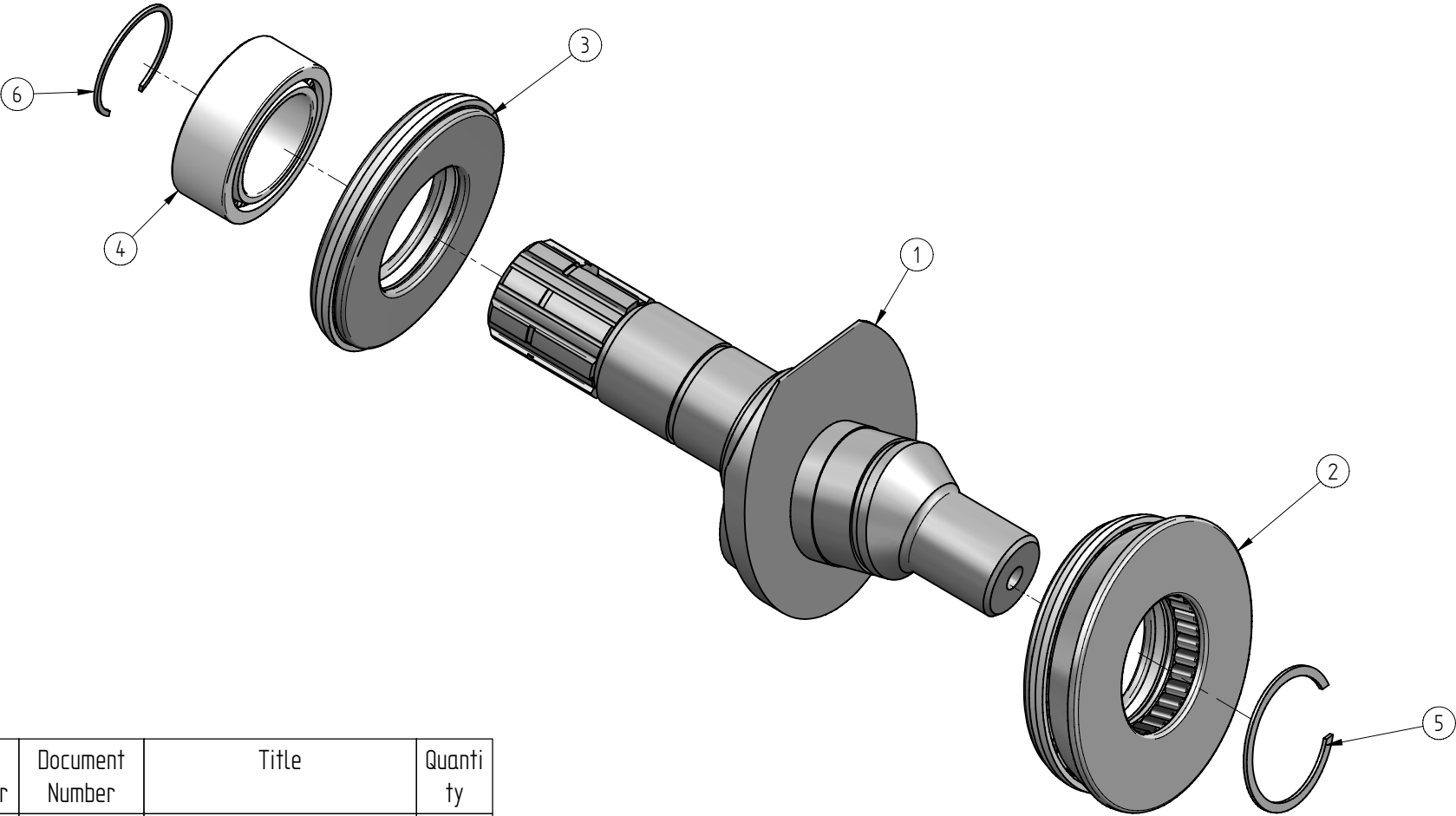
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



PISTON ASSEMBLY

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	
1:10 SCALE			SCALE:	WEIGHT:
			SHEET 6 OF 9	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



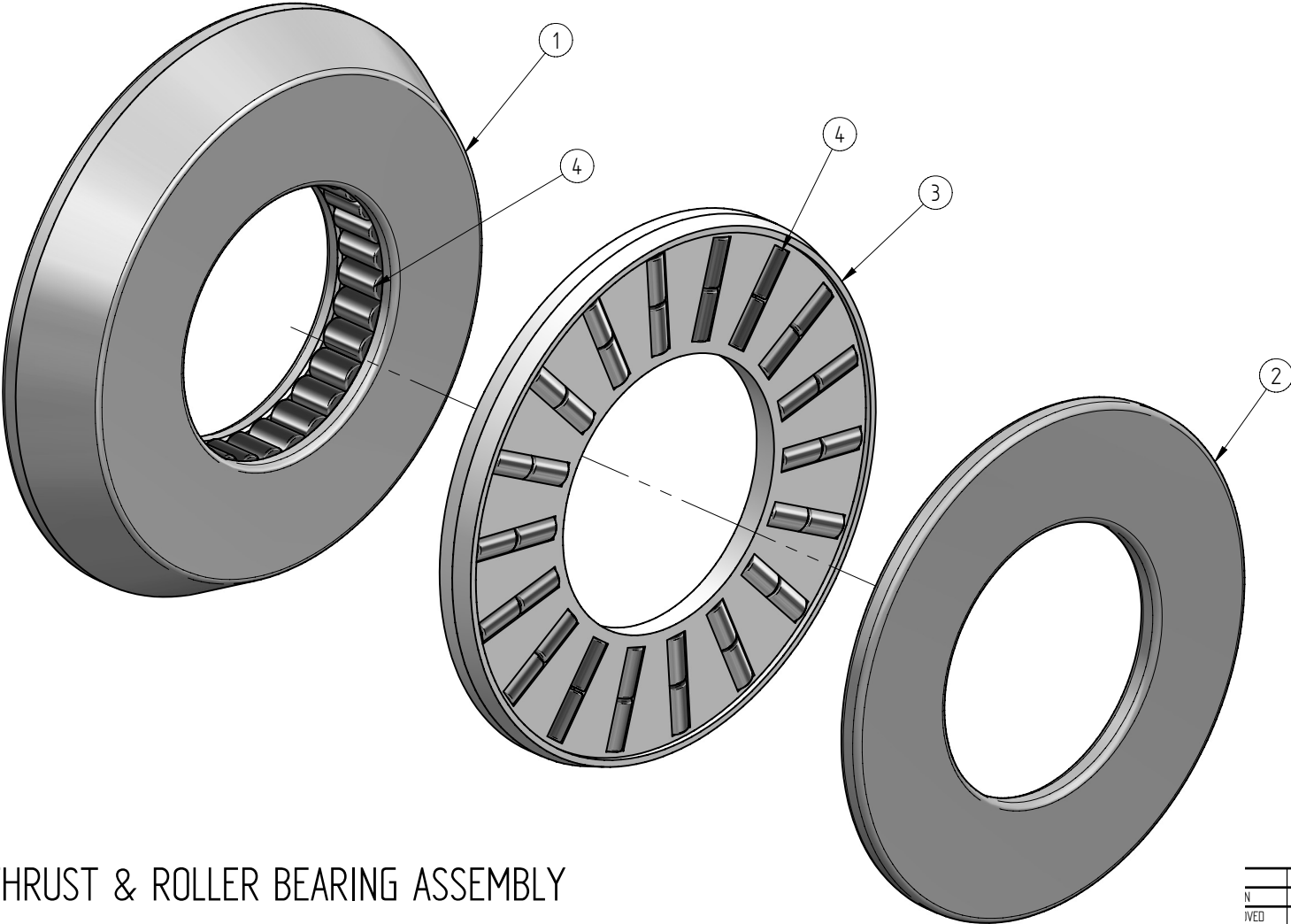
Item Number	Document Number	Title	Quantity
1	P52-003	Pump Shaft	1
2	P52-004	Thrust & Roller Bearing 44,85,22	1
3	P52-005	Thrust Bearing 44,85,12	1
4	P52-006	Bearing NA 4907	1
5	P52-010	Snap Ring 42 Shaft	1
6	P52-011	Snap Ring 35 Shaft	1

SHAFT ASSEMBLY

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	REV.
1:10 SCALE			SCALE:	WEIGHT:
			SHEET 7 OF 9	

Item Number	Document Number	Title	Quantity
1	P52-004-1	Roller Bearing Housing	1
2	P52-004-3	Thrust Washer	1
3	P52-004-4	Thrust Bearing Cage	1
4	P52-004-5	Cyl Roller 5-8	66

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



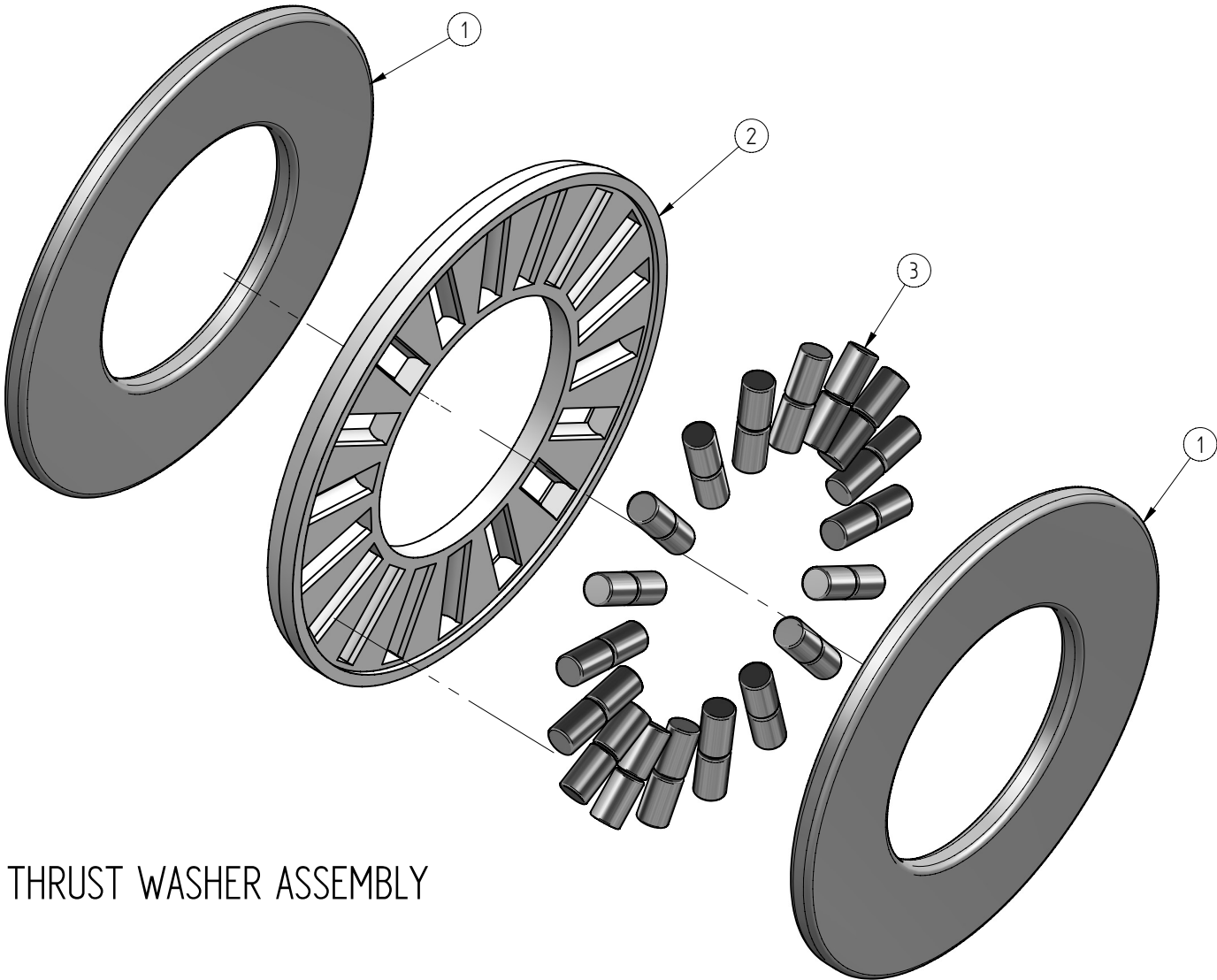
THRUST & ROLLER BEARING ASSEMBLY

NAME	DATE	PREMAC	
N	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.
IVED			
MATERIAL			TITLE
TREATMENT			P52 PTO PUMP
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°		SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005		FILE NAME: PTO Pump.dft	REV.
SCALE:	WEIGHT:	SHEET 8 OF 9	



Item Number	Document Number	Title	Quantity
1	P52-004-3	Thrust Washer	2
2	P52-004-4	Thrust Bearing Cage	1
3	P52-004-5	Cyl Roller 5-8	36

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



THRUST WASHER ASSEMBLY

	NAME	DATE	PREMAC	
DRAWN	Dan	10/11/06	PRECISION MACHINE MANUFACTURERS (PTY)LTD.	
APPROVED			TITLE	
MATERIAL			P52 PTO PUMP	
TREATMENT				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS ANGLES ±0.1°			SIZE A2	DWG NO
2 PL ±0.02 3 PL ±0.005			FILE NAME: PTO Pump.dft	REV.
SCALE:		WEIGHT:	SHEET 9 OF 9	

# STOCK SHEET

Item Number	Document Number	Title	
1	M12-35	Cap Screw	
2	P52-001	Housing	
3	P52-002	Inlet Housing	
4	P52-003	Pump Shaft	
5	P52-004-1	Roller Bearing Housing	
6	P52-004-3	Thrust Washer	
7	P52-004-4	Thrust Bearing Cage	
8	P52-004-5	Cyl Roller 5-8	
9	P52-006	Bearing NA 4907	
10	P52-007	PAP 2830 P10	
11	P52-008	Shaft Seal 35,52,7	
12	P52-009	O-Ring 2-044 / 2-043	
13	P52-010	Snap Ring 44 Shaft WR42	
14	P52-011	Snap Ring 35 Shaft WR35	
15	P52-012	Piston	
16	P52-013	Dia 9.525 Ball	
17	P52-014	Piston Ball Retaining Clip	
18	P52-015	Piston Spring	
19	P52-016	Dia10 Washer	
20	P52-017	Check Valve Housing	
21	P52-019	Check Valve Ball Stopper	
22	P52-020	Check Valve Spring	
23	P52-021	Dia3 Sel lock Pin	
24	P52-022	Oil Shaft Seal 35,52,7	
25	P52-023	Dia 11.0 Ball	
26	M6-8	M6 Bleed Screw	
27	W6-1	Bleed Screw Washer	