

## INSTRUCTIONS FOR T2DR, T2DR-L, T3DR, T2GR & Y2DR

Read before operation and follow the instructions.

1) Lubrication:

Before operation, supply the oiler (OIL) in full with steam oil (Blue liquid). Lubricate metal, crosshead, crankshaft, eccentric, etc. as well as all revolution and movement sections with machine oil or 50 weight automobile engine oil. Supply oil, and lubricate the engine prior to every operation.

2) Breaking-In:

Initially, run the engine twice (for about 40-minute periods in total) at approximately 1,000 – 1,500 rpm. DO NOT EXCEED 1,500 RPM! On starting up T2GR for the first time, firing a boiler using one burner nozzle is sufficient because the engine should only be run at low speed during break-in.

3) Reversing gear:

Do not change the gear forcibly before breaking in. Change it at SLOW position during operation. Close the regulator once as change is difficult.

4) Avoid running the engine at maximum rpm without a load.

5) The engine should be mounted on a flat surface. If the surface is uneven, the engine bed will be warped and the shaft will not work smoothly. (Wood screws are sufficient for anchoring steam engines.)

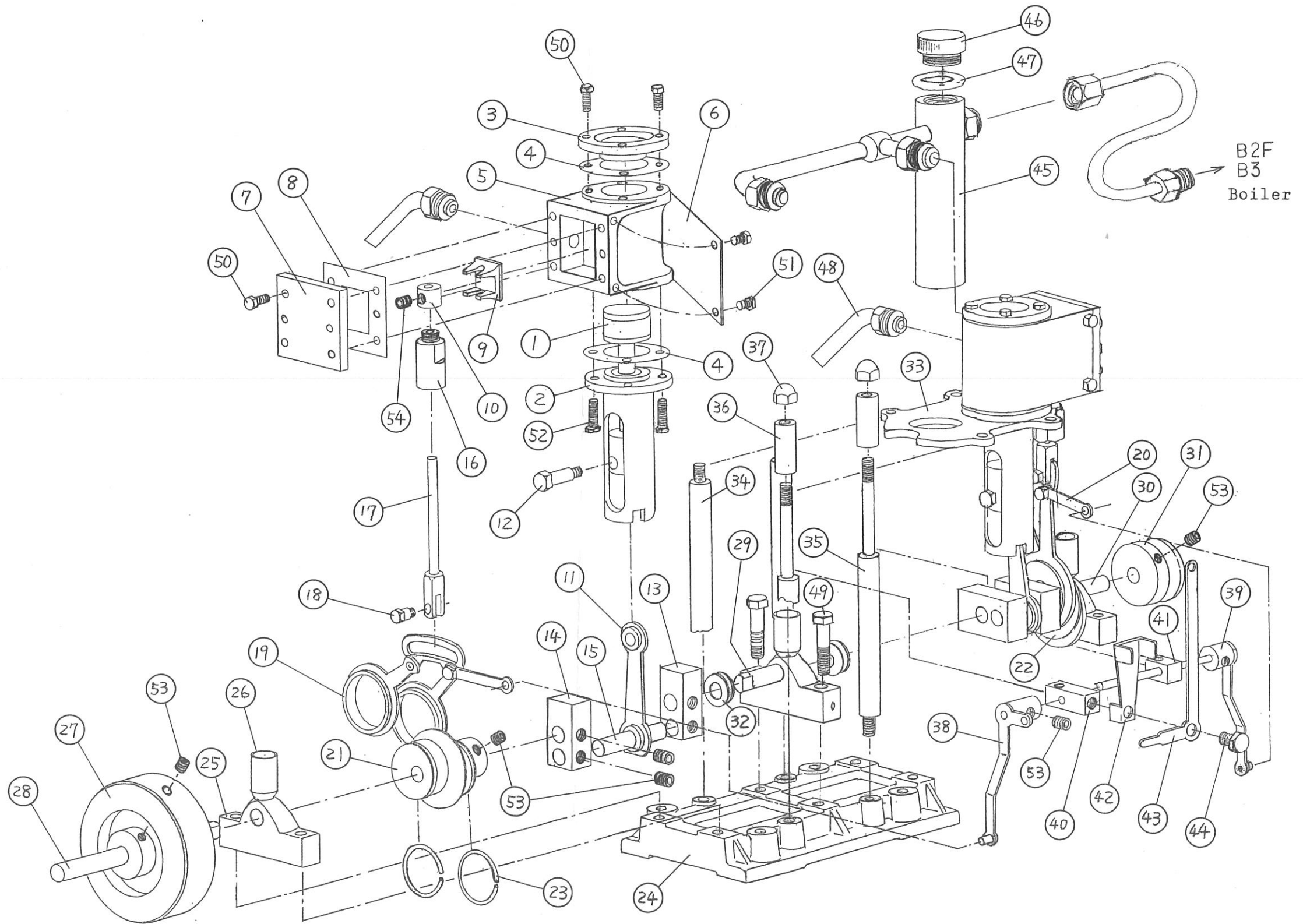
6) Steam engines are not necessary to be adjusted always. However, with every operation, the engine must be supplied with sufficient oil (steam oil to the oiler, machine oil or 50 weight mobil oil to the others with the exception of the oiler).  
**Warning: DO NOT use machine oil or spindle oil in the oiler.**

7) Do not take the engine apart unless necessary.

**Any products disassembled by users shall be out of warranty.**

8) When the pressure gauge shows 2kg/cm<sup>2</sup>, open the regulator quickly to full-open position. When starting up a T2GR, the engine may knock badly due to a “water-hammer” phenomenon. This is not unusual nor damaging to the engine. Once the engine is warmed up sufficiently, it will run smoothly.

# T2DR-L Part List



### T2DR-L Steam Engine Parts List

1	Piston Assembly	28	Crankshaft A
2	Guide ”	29	Crankshaft B
3	Cylinder Head	30	Crankshaft C
4	Cylinder Packing	31	Pulley
5	Cylinder	32	Washer
6	Cylinder Cover	33	Cylinder Base
7	Valve Cover	34	Stay Bolt A
8	Valve Cover Packing	35	Stay Bolt B
9	Valve	36	Stay Bolt C
10	Valve Rod Collar	37	Hexagon cap nut M3
11	Conrod Assembly	38	Bell Crank Assembly
12	Gudgeon Pin	39	Rod Asembly
13	Crank A	40	Reverse Bearing A
14	Crank B	41	Reverse Bearing B
15	Crank Pin	42	Reverse Lever Stopper
16	Valve Rod Grand Assembly	43	Reverse Lever
17	Valve Rod Assembly	44	Reverse Lever Nut Pin
18	Valve Nut Pin	45	Oiler Assembly
19	Link Assembly (flywheel side)	46	Oiler Cup
20	Link Assembly (pulley side)	47	Oiler Packing
21	Eccentric A	48	Exhaust Pipe Assembly
22	Eccentric B	49	Bolt M3 x 12
23	C Ring	50	Bolt M2 x 5
24	Engine Head	51	Bolt M2 x 3
25	Crank Bearing	52	Bolt M2 x 7
26	Oil Cup	53	Socket Set Screw M3 x 3
27	Flywheel	54	Socket Set Screw M3 x 3