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.

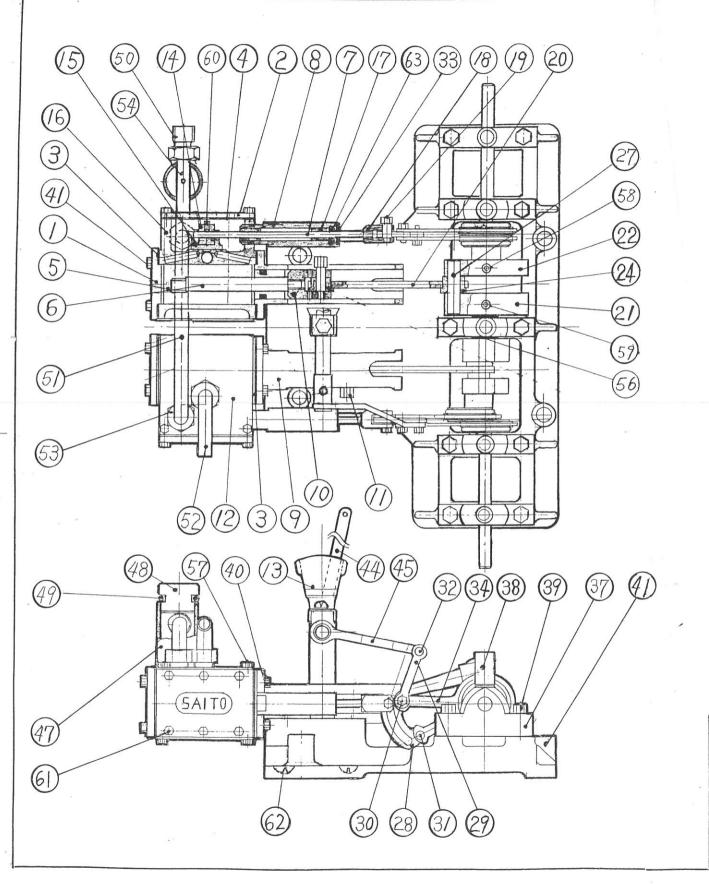
2) Breaking-In:

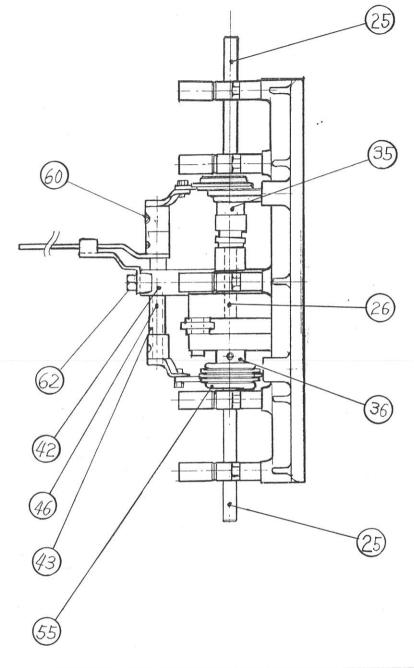
Initially, run the engine twice (for about 40-minute periods in total) at approximately 1,000 - 1,500 rpm. DO NOT EXCEED 1,500 RPM! On starting up T2GR for the first time, firing a boiler using one burner nozzle is sufficient because the engine should only be run at low speed during break-in.

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/cm², 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.





| 名 | 称 | Y2DR ST | EAM | ENGI | NE | | 材 | 質 | 改訂年月 | 月日人 | 1) 61-1-14 |
|----|-----|---------|-----|------|----|---|-----|-----|------|-----|------------|
| 型 | 式 | Y2DR | | | | | 1台分 | 個数 | // | | 2 |
| 部品 | 番号 | | | | | | 縮 | 尺 | // | | 3 |
| 部后 | 3 名 | 魚 立 | Ø | | | | 設計年 | 三月日 | 設 | 計 | |
| | | | | | | | 図 | 面 | | | |
| 有 | 可限分 | 会社 斎 | 藤 | 製 | 作 | 所 | 番 | 号 | | | |

Y2DR Parts List

| | | a |
|------|-----------------------------------|-------|
| NO | Description | Q' ty |
| 1 | Cylinder Head | 2 |
| 2 | Valve Cover | 2 |
| 3 | Cylinder Head Packing | 4 |
| 4 | Valve Cover Packing | 2 |
| 7 | Valve Rod | 2 |
| 9 | Cross Head Guide | 2 |
| 1 1 | Gudgeon Pin | 2 |
| 1 2 | Cylinder Cover | 2 |
| 1 3 | Reverse Lever Stopper | 1 |
| 14 | Valve Rod Collar | 2 |
| 1 5 | Valve | 2 |
| 1 6 | Cylinder (Right) | 1 |
| | Cylinder (Left) | 1 |
| 18 | Valve Rod Joint | 2 |
| 1 9 | Valve Pin | 2 |
| 2 6 | Crank Shaft [B] (Center) | 1 |
| 3 5 | Eccentric & Link Assembly (Right) | 1set |
| 3 7 | Crank Shaft Bearing | 5 |
| 3 8 | Oil Cup | 5 |
| 3 9 | Crank Shaft Bearing Screw | 1 0 |
| 4 0 | Cylinder Head Screw | 1 6 |
| 4 1 | Engine Bed | 1 |
| 4 4 | Reverse Lever | 1 |
| 4 6 | Shaft | 1 |
| 48 | Oiler Cap | 1 |
| 4 9 | O-Ring [P-11] | 1 |
| 5 2 | Exhaust Pipe | 2 |
| 5 6 | Crank Shaft Washerr | 2 |
| 5 7 | Cylinder Cover Screw | 8 |
| 6 0 | Set Screw [M3] | 4 |
| 6 1 | Valve Cover Screw | 1 2 |
| 6 2 | Bolt | 1 |
| Bell | Crank Assembly | 2set |
| 3 2 | Bell Crank Pin | 2 |
| 4 5 | Bell Crank | 2 |

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|------|-----------------------------|------|
| NO | Description | Q'ty |
| Pist | on Assembly | 2set |
| 5 | Piston | 2 |
| 6 | Piston Rod | 2 |
| 1 0 | Cross Head | 2 |
| Valv | e Rod Guide Assembly | 2set |
| 8 | Valve Rod Guide | 2 |
| 17 | Valve Rod Guide Assembly | 2 |
| 3 3 | Grand Cover | 2 |
| 6 3 | O-Ring [P-2] | 2 |
| Cran | k Shaft & Con'rod Assembly | 2set |
| 2 0 | Connecting Rod | 2 |
| 2 1 | Crank Arm [A] | 2 |
| 2 2 | Crank Arm [B] | 2 |
| 2 4 | Connecting Rod Metal [B] | 2 |
| 2 5 | Crank Shaft [A] | 2 |
| 2 7 | Crank Pin | 2 |
| 5 6 | Crank Shaft Washerr | 2 |
| 5 8 | Set Screw [M3] | 4 |
| 5 9 | Set Screw [M3] | 4 |
| Ecce | ntric &Link Assembly (Left) | 1set |
| 2 8 | Expansion Ring | 2 |
| 2 9 | Rod | 2 |
| 3 0 | Expansion Ring Pin [A] | 2 |
| 3 1 | Expansion Ring Pin [B] | 2 |
| 3 4 | Valve Rod | 4 |
| 3 6 | Eccentric (Left) | 1 |
| Reve | rse Lever Stand Assembly | 1set |
| 4 2 | Reverse Lever Stand | 1 |
| 4 3 | Reverse Shaft Receiver | 1 |
| Oile | r Assembly | 1set |
| 4 7 | Oiler Body | 1 |
| 5 0 | Oiler Nipple | 1 |
| 5 1 | Intake Pipe | 1 |
| 5 3 | Nipple | 4 |
| 5 4 | Steam Pipe | 1 |