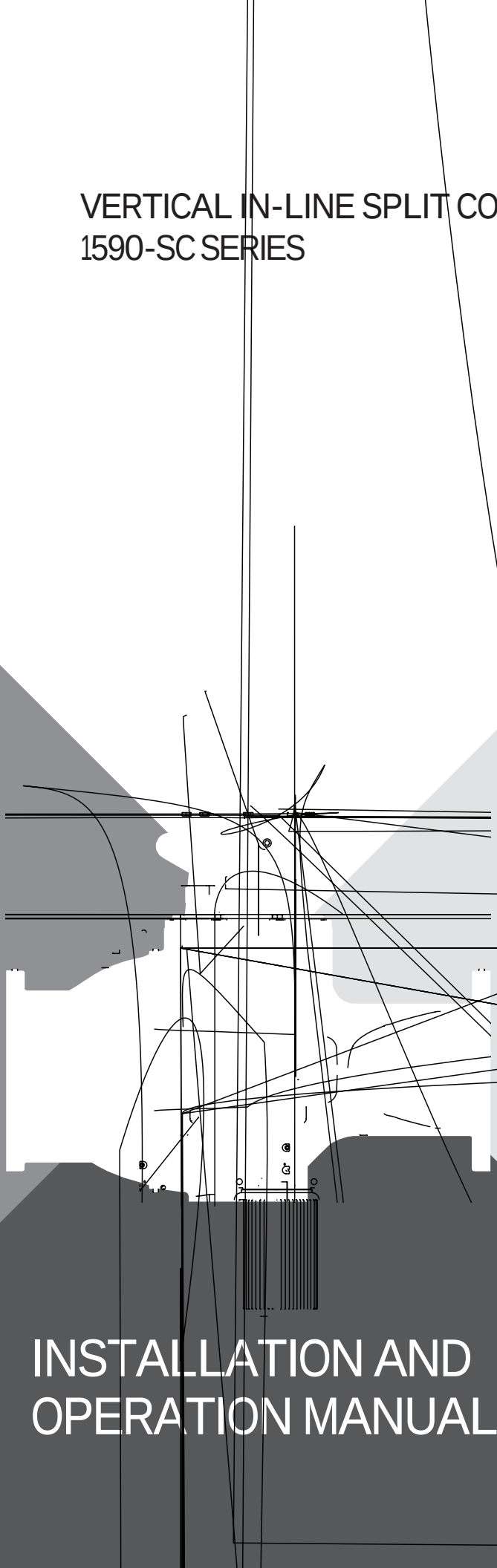
VERTICAL IN-LINE SPLIT COUPLED PUMPS
1590-SC SERIES



INSTALLATION AND OPERATION MANUAL

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⚠ CAUTION

Ensure correct lubrication. See “Lubrication” on Page 8 for lubrication instruction.

Start the pump at reduced speed or with the discharge valve partly opened. This is recommended to minimize the risk of overloading and damaging the pump motor at full or zero flow. Pumps may be started with the valve further open only on installations where this situation cannot occur. The pump discharge control valve may need to be adjusted to comply with the duty following the run-up process. See “Pump Operation” on Page 8.

Suction valve must be fully open. Do not run the pump with the discharge valve closed.

Do not run the pump continuously outside the allowable 1 (e t(h)-2 (e)-19.8 (T0(e)-17(e)-18.1 (r)-17(1e9r)-17 (i)-14.1 (o)-20 (n v)-24.8)-30.84)-24.8 (a)-25 (IL(l)-19.9 (o)o)-2

22 1 v 622 1 (e)-18.1 (r)-29.5 (n)-22 m 5 (i)-20 D 216 >p 4 215.7 (i)-13he T0(e)-17(e)-18.1 (r)-17(1e9r)-17 (i)-14.1 30003>Tj ET EMC /P <</L503CID 22

The pump does not contain any bearings that require lubrication; however motor bearings must be lubricated periodically.

⚠ CAUTION Before running the driver, either separately or connected to the pump, check lubrication and cooling requirements.

Power is transmitted from motor shaft to the pump shaft through a split coupling. The pump shaft does not contain bearings that need lubrication.

Before starting, check the direction of rotation. The direction is indicated by a direction arrow on the pump casing. The proper rotation can be easily determined by observing the direction of the casing scroll and the position of the discharge nozzle. The rotation should be checked with the coupling disconnected from the driven equipment.

⚠ CAUTION It is essential that the rotation of the motor be checked before connecting the shaft coupling. Incorrect rotation of the pump, for even a short time, may dislodge and damage the impeller, casing, shaft, and shaft seal.

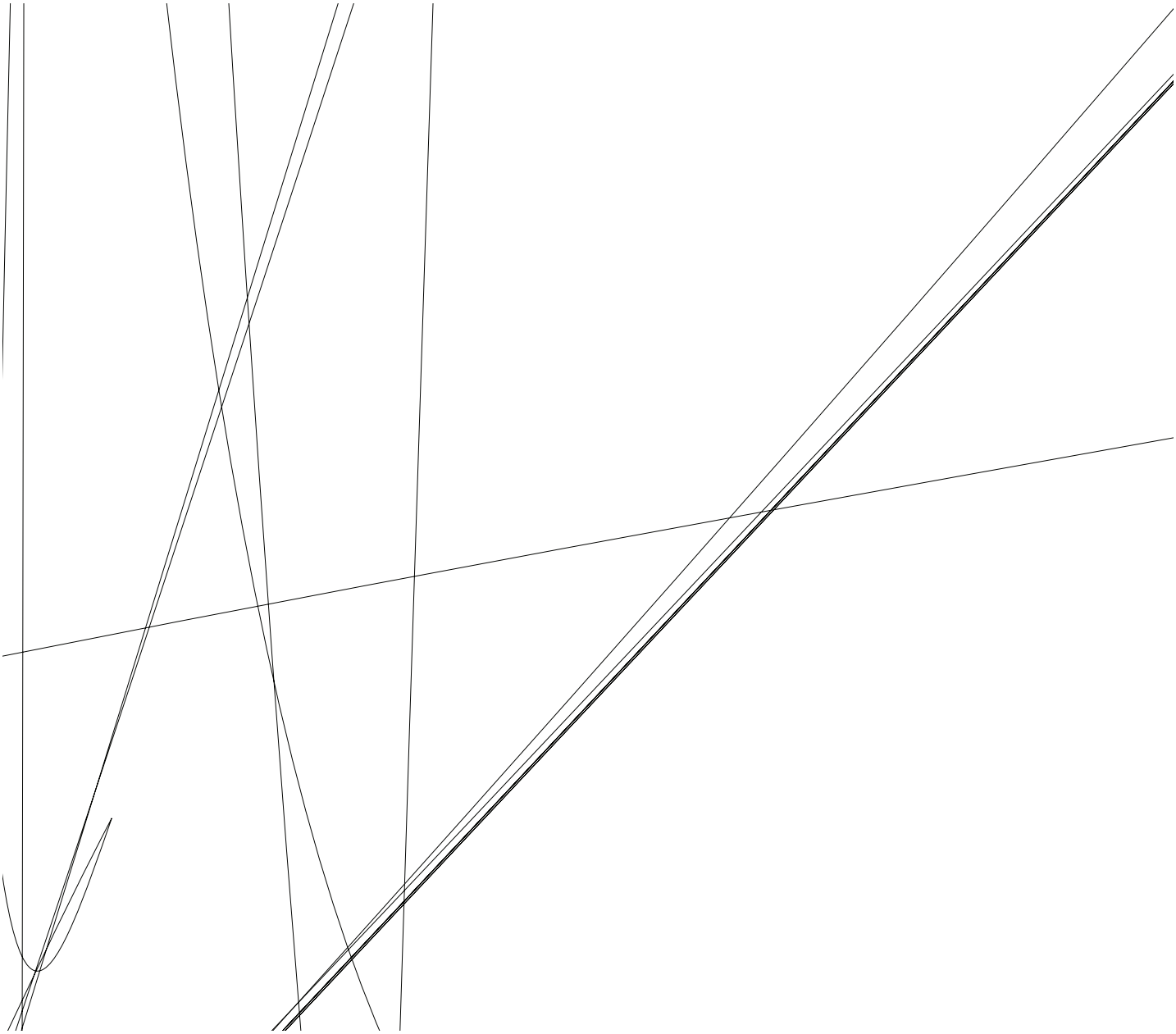
All guards must be in place and secure per0.5 (h)-23.1 (a)-21.31 (5 (u)-10-19 (s)-25r0.5 (h)2 (r)-18.u (o)-17.cm0 0 m0.36 1.989 0. (h)-2.1 (af.32 3.28 -200. (h)d (r1700. (h)d (22.7 (

Preventive maintenance and routine check-ups may prevent the pump from major failures. An inspection & maintenance log should be kept and the inspector should immediately report any problems. Pump should be checked on regular basis for any unusual noise, vibrations and abnormal rise of temperature. If so equipped, check the sight flow indicator from time to time for fluid flow and if no flow is observed, replace the filter or check the separator. A suggested guide for preventive maintenance for normal application is given below in Table 2.

Refer to "Assembly Exploded View" Figure 35 on Page 21 for item numbers.

8. Unscrew impeller screw (#9), remove impeller washer (#9A) and impeller seal (#9C).
9. Slide impeller (#11) and impeller key (#12) from shaft.
10. Remove spire bush (#13) from the impeller bore using a small puller. During reassembly the new bushing must be pressed evenly or it can crack.
11. Remove wear rings (#7) & (#16) from the casing and seal plate with the help of a puller.

	Speed too low	
Insufficient pressure or Insufficient/no flow		



1	COMPRESSION ELBOW
2	COMPRESSION CONNECTOR
3	TUBING
4	PIPE PLUG
4A	PIPE PLUG
5	CAP SCREW
5A	WASHER
6	CASING
7	