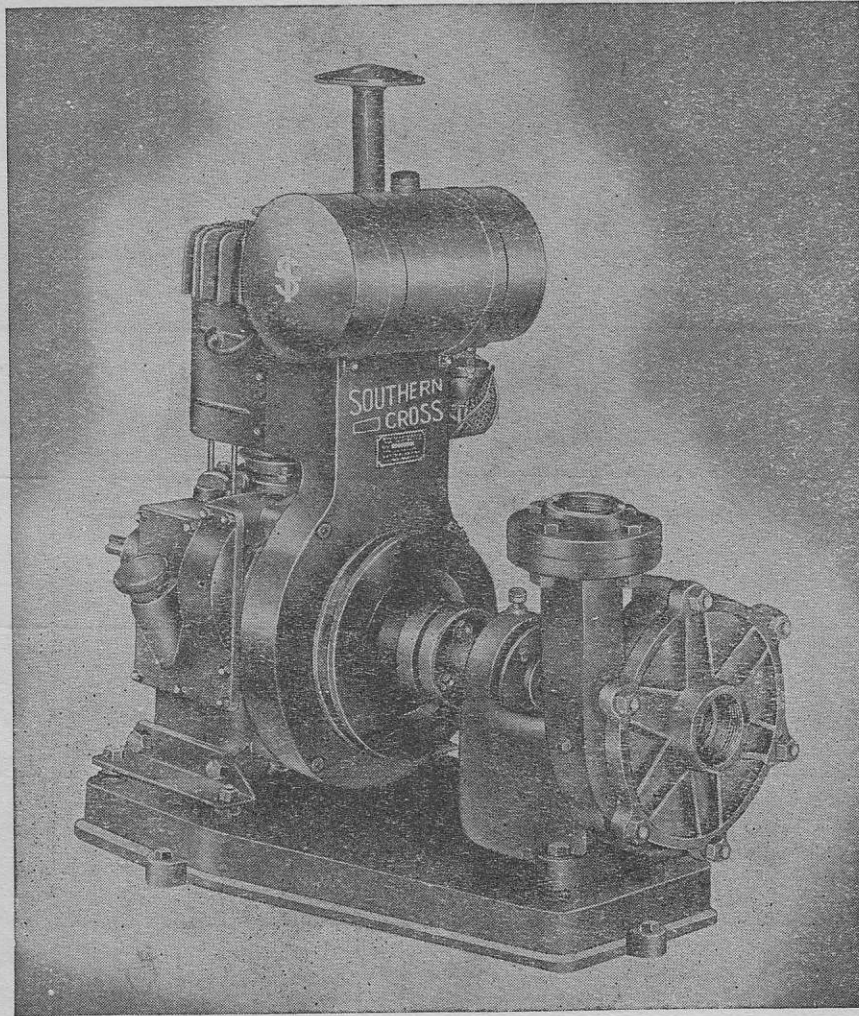


FIG. 2692 — DIRECT COUPLED UNIT



The Unit comprises a Mark AXC Air Cooled Petrol Engine, driving, by a Mark BNE Flexible Coupling, a Mark BME Centrifugal Pump, all mounted on a Mark BOE Cast Iron Base. The Engine can be run from speeds of 1200 R.P.M. to 1800 R.P.M., but do not vary the speed when pumping.

For the concrete foundation refer to beginning of Instruction Book, and all other information given, such as Location of Pump, Pump Troubles and Their Causes, applies to this Unit as well as standard Pumps.

Never use a smaller pipe than 2½ in. for the suction pipe of this Unit and a 3 in. suction pipe is recommended where a discharge of over 4000 G.P.H. is required.

The suction connection on the pump is screwed 2½ in. Gas Taper, therefore where 3 in. suction piping is to be used, a 3 in. to 2½ in. reducing nipple is necessary.

For discharges lower than 4000 G.P.H. a 2 in. discharge pipe is recommended, and for 4000 G.P.H. and greater discharges a 2½ in. pipe. Of course, where a very long delivery pipe is used these sizes may cause excessive friction head. Therefore, it is advisable to check the friction head of all installations before deciding finally on the size of the pipe.

ENGINE ROOM.

Remember that the Engine on this Unit is Air Cooled, and therefore must be set up in a position with ample circulation of air.

The engine room must have one side completely open so that it cannot be closed, or one side can be arranged with louvres half way down and the bottom open.

Flexible Coupling.

The Mark BME Southern Cross Centrifugal Pump is supplied for direct coupling by means of a Flexible Coupling which connects the Pump to the driving member. In the case of the Fig. 2692 Unit the Pump is driven by a Mark AXC Air Cooled Petrol Engine.

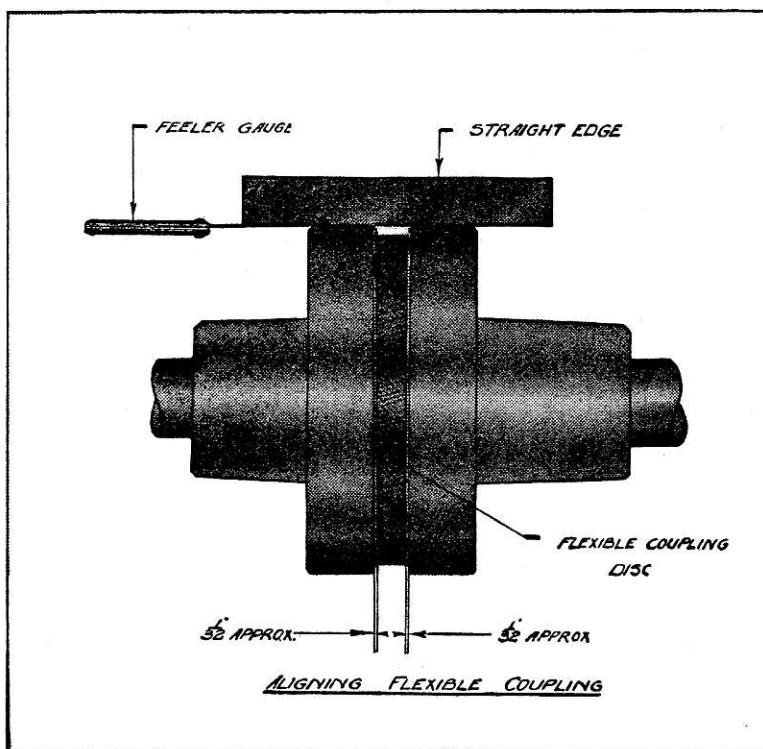
In most cases this Unit will be supplied already direct coupled and aligned, but, before commencing pumping, it will be advisable to recheck the alignment to make sure that mishandling or other cause has not upset the alignment of the coupling.

The life of any flexible coupling depends entirely upon the accuracy of the alignment, and the more accu-

rate the alignment the longer its life will be. If not in line, the Coupling Disc will quickly wear out, and the pump may be damaged.

To align the Coupling a straight edge about 4in. long and a set of feeler gauges are required.

The two halves of the Coupling are exactly the same diameter, so that if the diameters coincide, the pump and driving unit must be in line. Adjust the pump and the driving unit until the straight edge, when tried across the outer edges of the coupling, fits evenly on both halves.



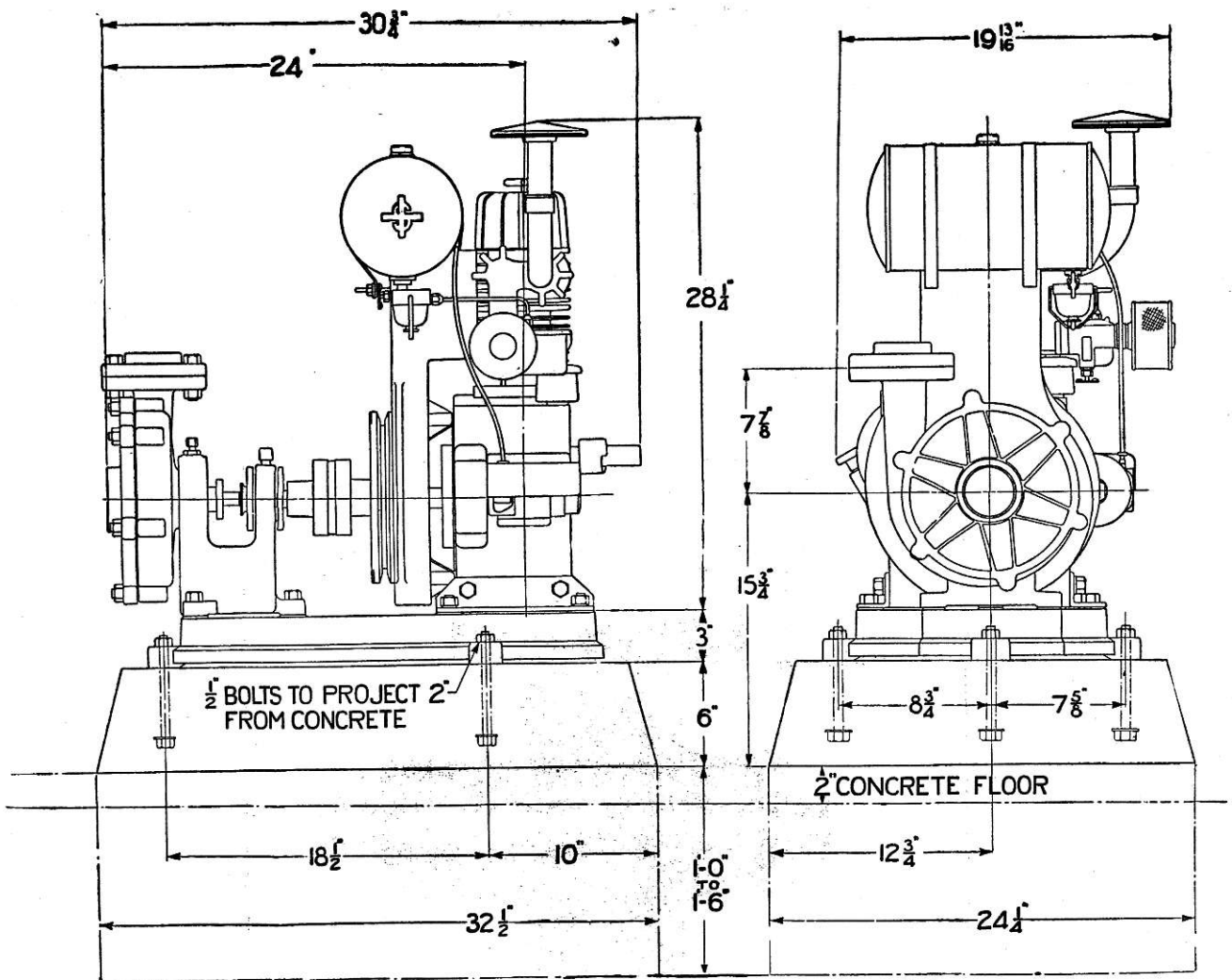
Adjust by placing the straight edge on the top of the coupling parallel to the axis of the shaft and hold firmly on the higher of the two halves (if the coupling is out of alignment). Feeler gauges are selected until one is found which is a neat fit between the straight edge and the smaller coupling.

A similar check is taken on the bottom of the coupling and adjustment made until the straight edge fits evenly on both halves. The adjustments are made by packing under either the driving unit or the pump. **All the holding down nuts must be tightened before each check.**

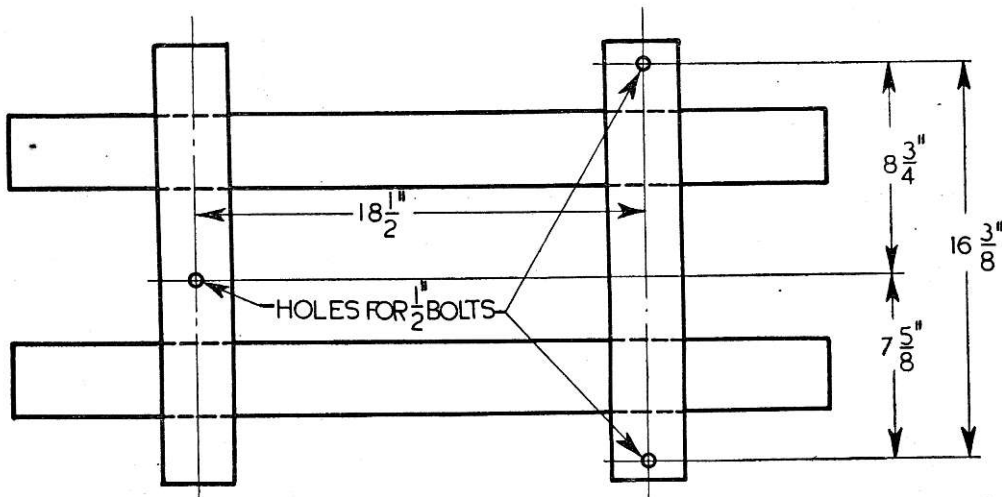
There should be at least $1/32$ in. slack either side between the Coupling Disc and the coupling halves, and the maximum permissible misalignment of the coupling halves is .005in.

Should the Unit be supplied on a Cast Iron Base, then it is advisable to recheck the alignment when the Base has been bolted down and before commencing pumping.

Make absolutely sure that the base seats only on the three feet provided, otherwise distortion of the base and misalignment of the coupling will take place.



General Arrangement of Fig. 2692 Pumping Unit.

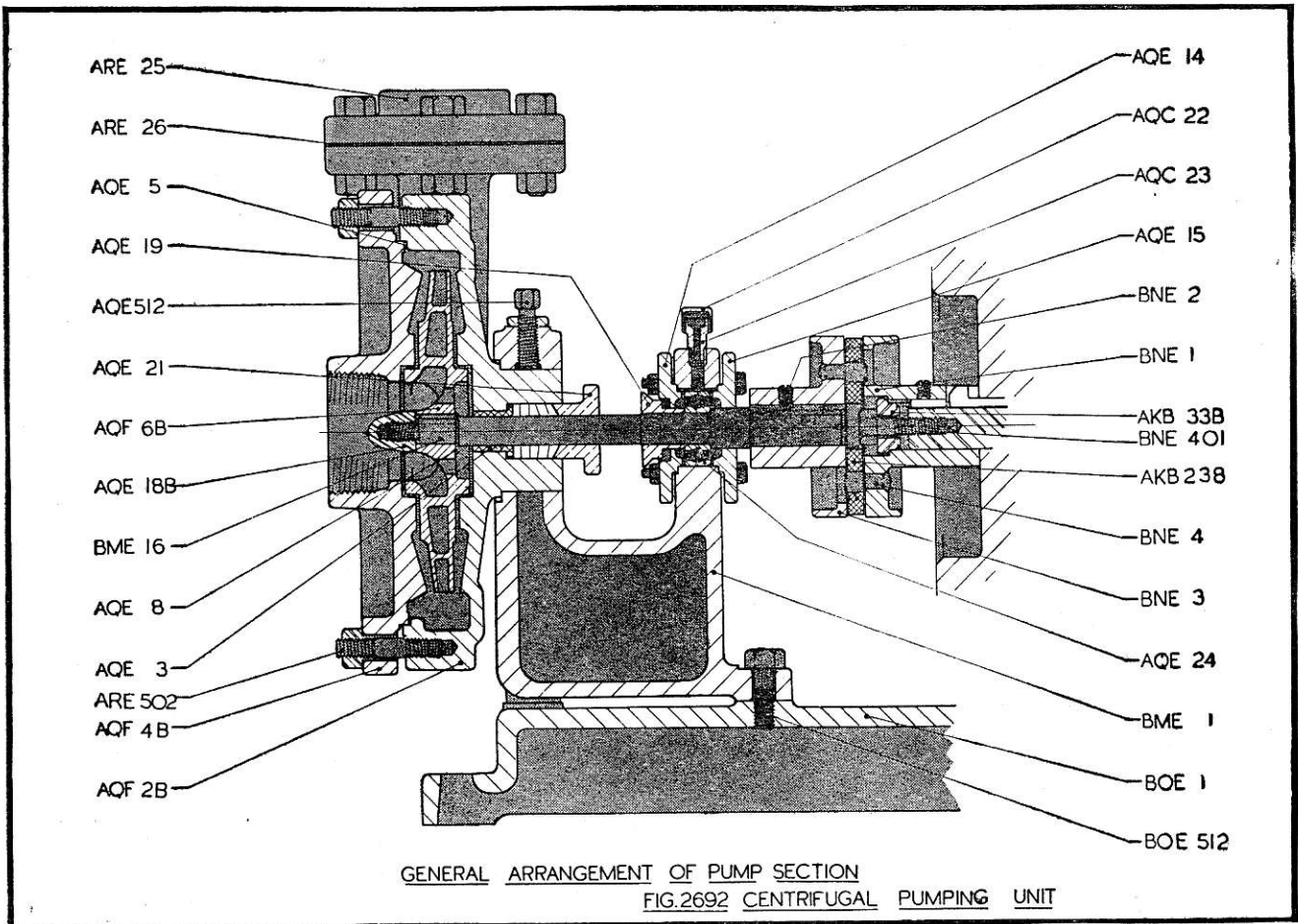


THIS TEMPLATE SHOULD BE CONSTRUCTED FROM SOUND TIMBER, CARE BEING TAKEN TO SEE THAT THE HOLES LOCATE ACCURATELY TO THE DIMENSIONS SHOWN. THE ENDS OF THE BOARDS ARE TO PROJECT SUFFICIENTLY TO ALLOW THE TEMPLATE TO SIT ON TOP OF THE MOULD BOARDS.

CARE SHOULD BE TAKEN, WHEN FILLING MOULD WITH CONCRETE, TO SEE THAT THE TEMPLATE IS NOT DISTURBED.

SEE PAGE 2 FOR FULL INSTRUCTIONS.

Template for Foundation Holes for Fig. 2692 Pumping Unit.



PARTS LIST

for

MARK BME CENTRIFUGAL PUMP FOR FIG. 2692 PUMPING UNIT.

Sym. No.	Name of Part.
BM-E 1	Pump Pedestal.
AQ-F 2B	Pump Body.
AQ-E 3	Pump Body Bush.
AQ-F 4B	Pump Body Cover Plate.
AQ-E 5	Pump Body Gasket.
AQ-F 6B	Pump Impeller.
AQ-E 8	Pump Impeller Distance Washer.
AQ-E14	Pump Centre Bearing Cap.
AQ-E15	Pump Gland End Bearing Cap.
BM-E16	Pump Spindle.
AQ-E18B	Pump Spindle Nut.
AQ-E19	Pump Spindle Water Thrower.
AQ-E21	Pump Packing Gland.
AQ-C22	Grease Cap.
AQ-C23	Grease Cup.
AQ-E24	Pump Spindle Bearing.
AR-E25	Pump Body Discharge Flange.
AR-E26	Pump Body Discharge Flange Gasket.
AR-E30	Name Plate.
AR-E502	Body Stud (6 off).
AR-C503	Packing Gland Stud (2 off).
AQ-E512	Body Locking Setscrew.
	Impeller Key (3/8 in. x 3/16 in. x 3/16 in. Plain Parallel Key).

PARTS LIST

for

MARK BNE FLEXIBLE COUPLING FOR FIG. 2692 CENTRIFUGAL PUMPING UNIT.

Sym. No.	Name of Part.
BN-E 1	Flexible Coupling—Driving Half.
BN-E 2	Flexible Coupling Grub Screw (2 off).
BN-E 3	Flexible Coupling—Driven Half.
BN-E 4	Flexible Coupling Drive Pins (6 off).
AK-B238	Flexible Coupling Disc.
BN-E401	Flexible Coupling Clamp Washer Setscrew.

PARTS LIST

for

MARK BOE BASE AND FITTINGS FOR FIG. 2692 CENTRIFUGAL PUMPING UNIT.

Sym. No.	Name of Part.
BO-E 1	Unit Base.
BO-E502	Engine Holding Down Studs (4 off).
BO-E512	Pump Pedestal Setscrews (3 off).