

**CIRCULAR LETTER**

NO S-2-82

FACTORY SERVICES

DATE 1/13/82

TO Field Service  
Engineered MachineryFROM Factory Service  
Engineered Machinery

SUBJECT Rebuilding "J" Compressors

"J" compressors that are being rebuilt in the field require a check valve part no. 022-04444B to be installed in the crankcase motor end of the compressor housing. This check valve has been made a part of all production "J" compressors starting 1/4/82 (Serial No. LM114679. Date Code '2-01-04-01).

Testing has shown during part load operation that oil collects in the motor housing with no way back to the crankcase. Crankcase oil then drops below sight glass level. The check valve allows the oil to return to the crankcase thereby maintaining crankcase oil level. The check valve also prevents oil from being pumped into the motor housing at startup.

To be done properly, separate the motor housing from the compressor and drill and tap straight through the compressor housing end wall from the motor side into the crankcase. The motor housing needs to be removed for two reasons. Drilling and tapping from inside the crankcase is difficult and not recommended. Removal of the motor housing insures a chip free motor after reassembly. We must also emphasize the importance of removing all drilling and tapping chips from the crankcase.

While drilling and tapping is done from the outside of the compressor housing, the check valve is installed from the crankcase side. This allows oil flow from the motor housing through the check valve into the crankcase, and not the reverse flow.

The attached sketch shows where the check valve is located and provides part numbers for the needed valve.

WG:a

*Wally Green*  
Wally GreenAttachment

M CODES: 2,3,4,5,6,6A,6B,6C,6D,7,8,9C,14,18,19,20,20A,22,25A,26,26A,27  
32A,32B,32C,60A,60D,60F,60G,60G

PA TWO  
S-2-82

INSTALL CHECK VALVE  
FROM CRANKCASE SIDE.

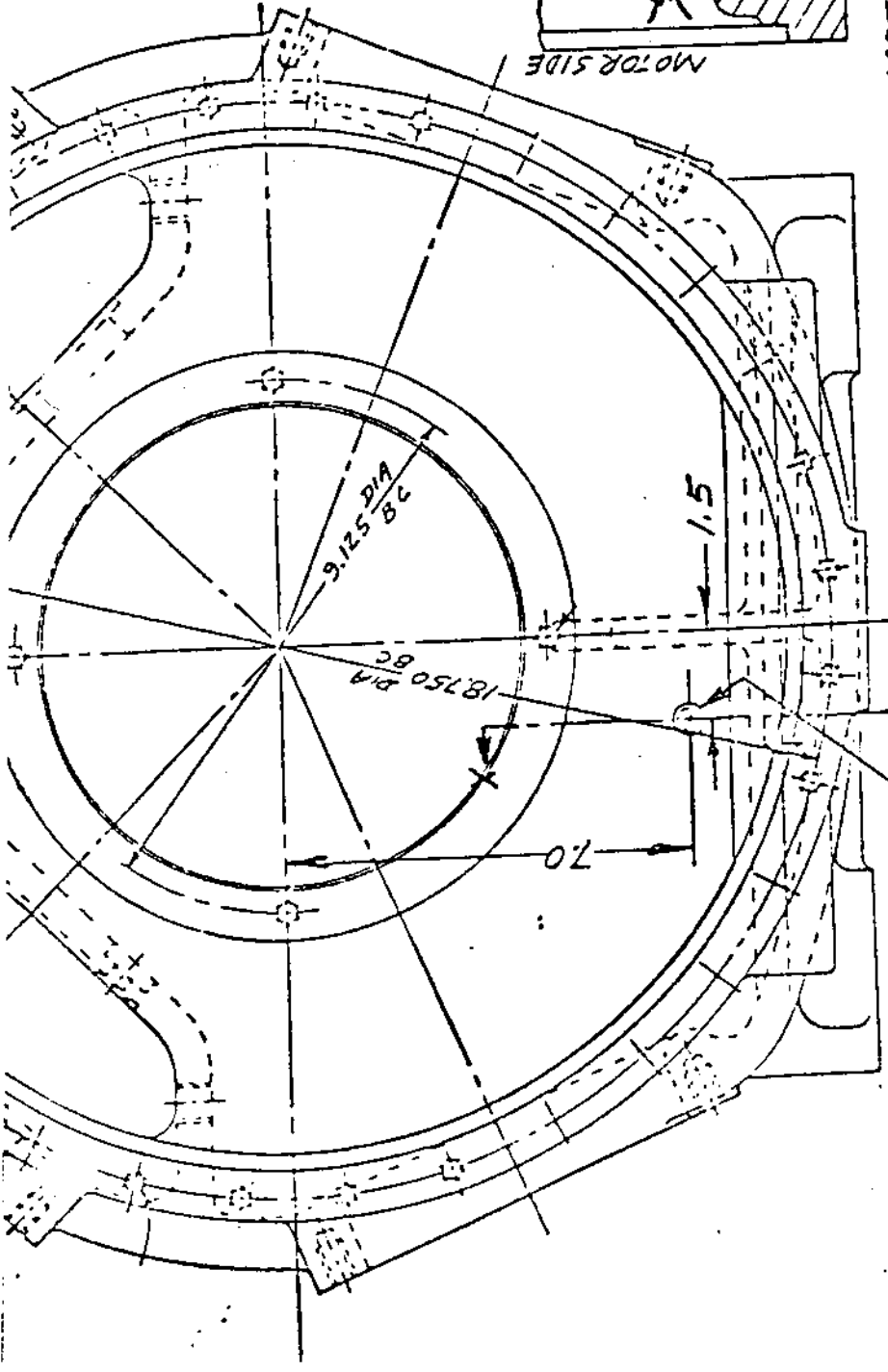
OIL

FLOW TO CRANKCASE  
PLACEMENT OF  
CHECK VALVE, PART NO  
022-049998

CRANKCASE SIDE  
HOUSING  
END WALL

MOTOR SIDE

MOTOR END OF  
COMPRESSOR HOUSING  
SECTION X-X



1 HOLE, 5 (.348) DRILL THRU  
TAP 1/8-27 NPS, STRAIGHT THREAD

WILL TAP THRU  
ON MOTOR SIDE

DATE		REVISED		CHG. NO.		DR.		CC.		FILM		SPECIAL INSTRUCTIONS FOR THE WORKMAN DATE OF WORKMAN'S SIGNATURE DATE OF WORKMAN'S SIGNATURE DATE OF WORKMAN'S SIGNATURE		HOUSING YS 43 COMPRESSOR		MATERIAL TYPE SEE SHT 1 PART NO SEE SHT 1 CUT SITE SEE SHT 1	
												YORK		SKETCH			
												DATE OF WORKMAN'S SIGNATURE DATE OF WORKMAN'S SIGNATURE DATE OF WORKMAN'S SIGNATURE		NOV 20, 1981 FJE			