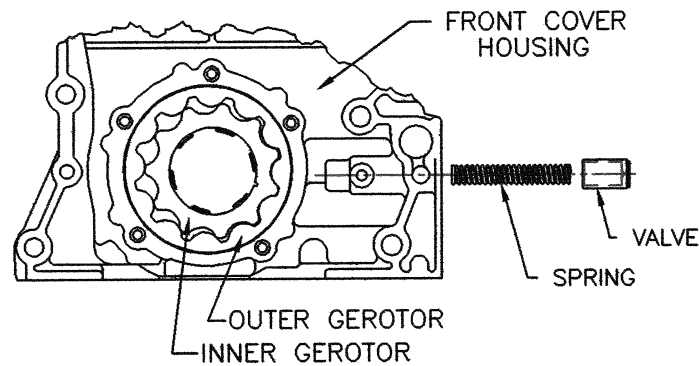


M22407  
REV. A

**INSTALLATION INSTRUCTIONS**



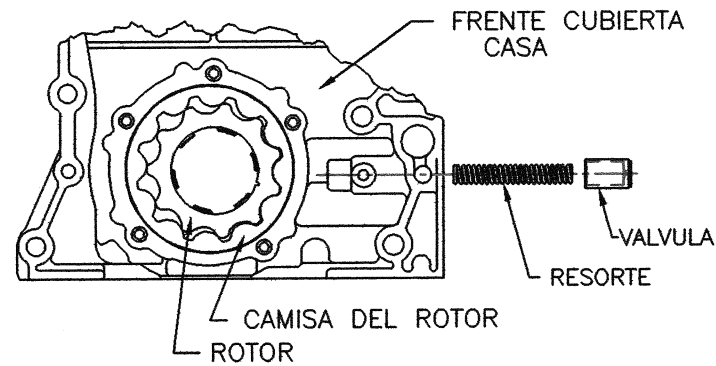
1. Lubricate gerotor set with clean motor oil, then install gerotor set into the housing with the gerotor I.D. chamfer facing the oil pump cover.
2. Install the oil pump cover with the screws provided. Tighten the cover screws to 96 in.lbs.
3. Install the pressure relief spring and valve as shown. Install the oil filter adapter using a new gasket. Tighten the oil filter adapter bolts to 22 ft.lbs.
4. Install front cover assembly on engine. **During front cover installation, be sure that the inner gerotor is properly engaged on the crankshaft sprocket.**
5. Before installing the new oil filter, fill oil filter with clean oil. This will help to reduce the time to pressurize the engine's lubrication system.

5.50

4.25

**FRONT**

**INSTRUCCIONES DE INSTALACION**



1. Lubricar el juego de rotor con aceite de motor limpio, despues instalar el juego de rotor en la carcaza con el con el chaflan del diametro interior del rotor viendo hacia la cubierta de la bomba de aceite.
2. Instalar la cubierta de la bomba de aceite con los tornillos proporcionados. Apretar los tornillos de la cubierta a 96 pulgada/pie.
3. Instalar el resorte de alivio de presion y la valvula tal como se muestra. Instalar el adaptador del filtro de aceite usando una junta nueva. Apretar los tornillos del adaptador de filtro a 22 lb/pie.
4. Instalar el ensamble de la cubierta frontal en el motor. **Durante la instalacion de la cubierta fronta, asegurarse que el rotor este debidamente asentado en el engrane del ciguenal.**
5. Antes de instalar el nuevo filtro de aceite, llenarlo con aceite limpio. Esto ayudara el tiempo de presurizacion del sistema lubricador del motor.

**BACK**

**SUPERSCEDES ALL PRINTS PRIOR TO THIS DATE: \_\_\_\_\_**

ENGINEERING APPROVAL OF FIRST PRODUCTION SHIPMENT FROM EACH SUPPLIER IS REQUIRED PRIOR TO AUTHORIZATION FOR USE ON MELLING PRODUCTION. NEW SAMPLES REQUIRED BEFORE ANY CHANGE IN PRODUCTION PROCESSING FOR ENGINEERING FUNCTIONAL TEST AND APPROVAL.

**MATERIAL:**

White Paper: 4.25" Wide x 5.50" High

—	4/9/99	NEW RELEASE	2093	—
LTR	DATE	REVISION	ECR	LOC

THE FOLLOWING ITEMS APPLY UNLESS OTHERWISE SPECIFIED: FOR FEATURES OF SIZE, PERFECT STRAIGHTNESS NOT REQUIRED AT MMC. FOR DIAMETRAL FEATURES, ROUNDNESS, MUST BE WITHIN THE MMC. AND LMC(LEAST MATERIAL CONDITION) BOUNDARY. TRUE POSITION TOLERANCES, AND RELATED DATUMS(EXCEPT PLANE SURFACES), APPLY AT MMC. OTHER GEOMETRIC TOLERANCES, AND RELATED DATUMS, APPLY AT RFS. SEPARATE TRUE POSITION CALLOUTS MAY BE GAGED SEPARATELY, REGARDLESS OF DATUM REFERENCE.

**GEOMETRIC DRAWING SYMBOLS**

— FLAT	⊕ TRUE POSITION	○ ROUND	∠ CYLINDRICAL
— STRAIGHT	∕ RUNOUT	∠ ANGULAR	⊙ CONCENTRIC
⊥ SQUARE	∅ DIAMETER	≡ SYMMETRICAL	— PROFILE OF A LINE
// PARALLEL	∩ PROFILE OF SURFACE	⊗ BASIC DIMENSION	(xxx) REFERENCE
Ⓜ MAXIMUM MATERIAL CONDITION(MMC)	Ⓟ REGARDLESS OF FEATURE SIZE	Ⓢ PROJECTED TOLERANCE ZONE	

**MELLING TOOL COMPANY**

P.O. BOX 1188, JACKSON, MICHIGAN 49204



ENGINE COMPONENTS  
PRODUCT ENGINEERING



**DO NOT SCALE DRAWING**

UNLESS OTHERWISE SPECIFIED THE FOLLOWING TOLERANCES APPLY:

METRIC DIMENSIONS

- ±.25 ALLOWED ON ONE PLACE DECIMALS
- ±.13 ALLOWED ON TWO PLACE DECIMALS
- ±.013 ALLOWED ON THREE PLACE DECIMALS
- ±0'30' ON ANGULAR DIMENSIONS.

ENGLISH DIMENSIONS

- ±.015 ALLOWED ON ONE PLACE DECIMALS
- ±.010 ALLOWED ON TWO PLACE DECIMALS.
- ±.005 ALLOWED ON THREE PLACE DECIMALS.
- ±.0005 ALLOWED ON FOUR PLACE DECIMALS
- ±0'30' ON ANGULAR DIMENSIONS.

REF. M224	SHT. 1 OF 1
DRAWN BY MJO	COMPLETED 4/9/99
CHECKED KDS	APPROVED 4/9/99
SCALE DO NOT SCALE	TOLERANCES NOT OTHERWISE SPECIFIED
MATERIAL SEE NOTE	APP. [Signature]
NAME SHEET-INSTALLATION	DATE 4/22/99
PART NO. M22407	