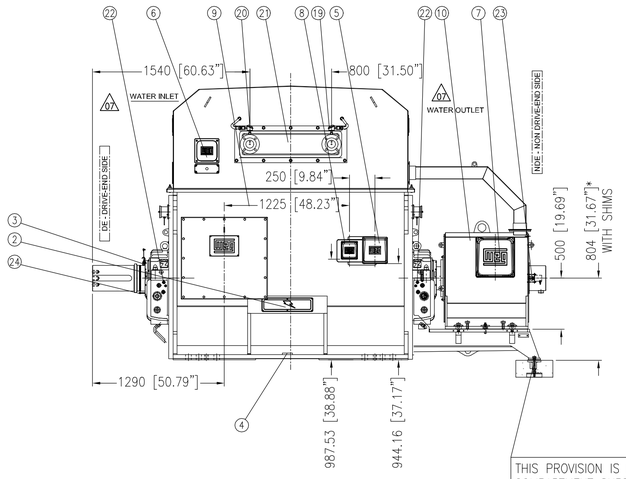
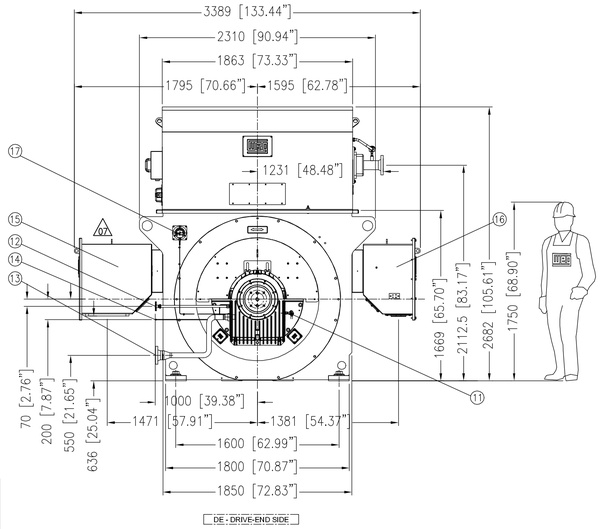
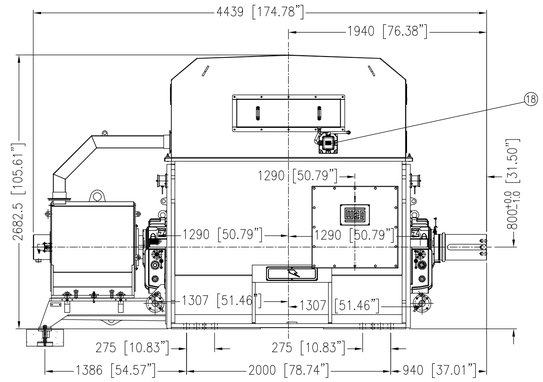
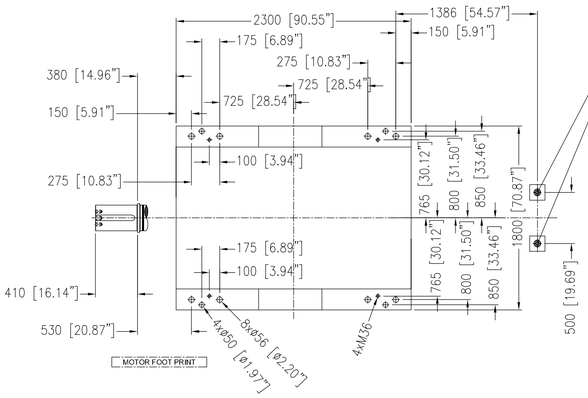
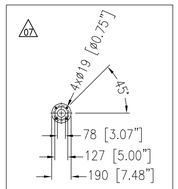


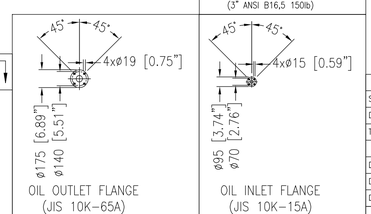


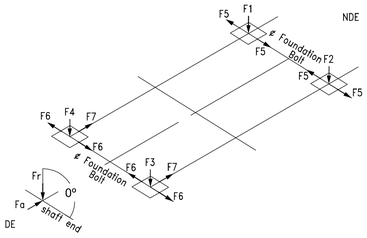


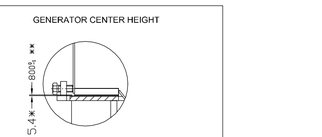
THIS PROVISION IS NECESSARY FOR EXCITER COMPARTMENT SUPPORT, PLEASE CHECK AVAILABLE ROOM AND HEIGHT.







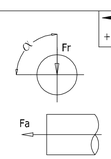




** - Generator center height: measured from generator center line up to machined base frame
* - Maximun height considered on design for shims is 5,4mm. The use of shims is always required.

CONDITION OF THE SHAFT END

	Rot.(rpm)	Duration (s)	Fr (KN)	Angle	+ Fa (KN) -	
Start-up	0	20	-	90	-	-
Nominal	850	Continuo	-	90	-	-
Over speed	1377	120	-	90	-	-



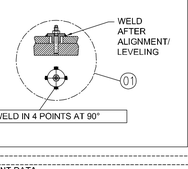
Foundation loads at rated load	F1 (kN)	F2 (kN)	F3 (kN)	F4 (kN)	F5 (kN)	F6 (kN)	F7 (kN)
Static forces	53.9	53.9	53.9	53.9	0.0	0.0	0.0
Dynamic forces at rated load	±14	±14	±14	±14			
Turbine load	0.0	0.0	0.0	0.0			
Foundation loads in case of fault							
Dynamic alternating forces at three phase short circuit	±68.8	±68.8	±68.8	±68.8			
Dynamic alternating forces at phase to phase short circuit	±95	±95	±95	±95			
Dynamic alternating forces at synchronizing out-of-phase (120°)	±112.5	±112.5	±112.5	±112.5			

* Fa, Fr E α INFORMED BY CUSTOMER

SLEEVE BEARING DATA

Bearing DE ZMZLB 22-250	Oil flow:: 5.6 l/min Oil quantity: 30 liters Losses: 2.4 kW Weight: 445 kg
Bearing NDE ZMZLQ 22-250	Oil flow:: 5.5 l/min Oil quantity: 30 liters Losses: 2.4 kW Weight: 445 kg
Oil for bearing lubrication: ISO VG-68	
Oil inlet temperature: 40 °C	
Oil change interval: 20000 hours	
Nominal oil inlet pressure: 1 ±0,2 Bar	
Bearings with loose oil rings	
Both bearings are insulated	
Both bearings with jacking oil system installed	

DETAIL OF THE MACHINE PINNING



NOTE

After generator assembly and complete alignment and before startup, check the eccentricity of the exciter air gap and, if necessary, correct using adjusting screws and shims.

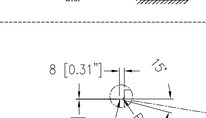
ACTION

Measure the air gap of the main exciter by removing the split cover and through the holes on the fan.

CRITERIA

The measured air gap shall not be less than 70% of nominal air gap.
Minimum air gap: 0.91 mm (main exciter)

ADVICE FOR POSITIONING OF THE HYDRAULIC UNIT



* Minimum allowed vertical drop between oil outlet connection of the machine and the hydraulic unit.

(d)	700	(mm)

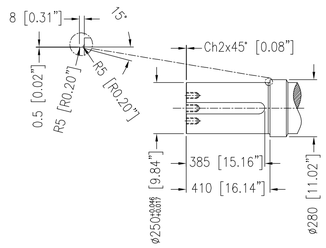
JACKING OIL SYSTEM DATA (NOT WEG SCOPE OF SUPPLY)

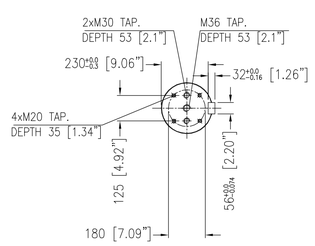
Start condition				Shutdown condition			
The system must be turned on before start the machine and must be turned off only after the machine reach XXX rpm.				During deceleration of the machine,the system should be turned on when the rotation reach XXXX rpm, and off only after a full stop.			
Pressure at starting	DE	65	(bar)	Pressure at shutdown	DE	40	(bar)
	NDE	65	(bar)		NDE	40	(bar)
Flow at starting	*	0.8	(l/min)	Flow at shutdown	*	0.8	(l/min)

* Recommended oil flow per bearing

DETAIL FOR ROTOR LIFTING

DETAIL OF SHAFT DRIVE END



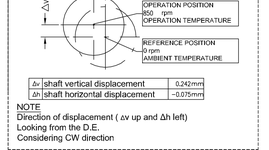


HEAT EXCHANGER DATA AIR-WATER (INDIVIDUAL DESCRIPTION)

- Thermal capacity: 160 kW
- Water flow: 459 l/min
- Maximum temperature water inlet: 35 °C
- Water temperature rise: 5 °C
- Maximum pressure water inlet: 5.8 bar
- Maximum water head loss: 0.7 bar
- Flange: 3" ANSI B16.5 - 150lb
- Water type; untreated industrial water
- Radiator weight: 350kg (empty)
- Heat exchanger weight: 1100kg (with radiator)
- Maximum inlet air temperature:45 °C

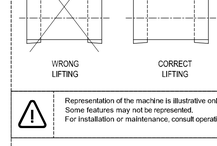
The maximum temperature of water intake must be at or below the maximum temperature.

ALIGNMENT DATA

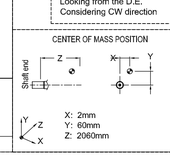


Δv shaft vertical displacement	0,242mm
Δh shaft horizontal displacement	-0,075mm

NOTE
Direction of displacement (Δv up and Δh left)
Looking from the D.E.
Considering CW direction



CENTER OF MASS POSITION



Mounting tolerance Dimensions rangel (D)	Tolerance
0 < D ≤ 15.7	± 0.4
15.7 < D ≤ 39.4	± 0.8
39.4 < D ≤ 78.8	± 1.2
78.8 < D ≤ 157.6	± 1.4
157.6 < D ≤ 315.2	± 1.6
Unit: in	

Pos.	ACCESSORIES/INSTRUMENTATION
24	MAGNECTIC CENTER GAUGE (AXIAL ENDPLAY: 12mm ±6mm)
23	ENCODER - HS35B - DYNAPAR
22	NIPPLE FOR SPM (1/BEARING - M8 SIZE)
21	HEAT EXCHANGER
20	Pt-100 - WATER INLET
19	Pt-100 - WATER OUTLET
18	WATER LEAKAGE DETECTOR
17	THERMOMETER WITHOUT ELECTRIC CONTACT (1/BEARING)
16	NEUTRAL TERMINAL BOX (BLANK GLAND PLATE)
15	MAIN TERMINAL BOX (BLANK GLAND PLATE)
14	JACKING OIL INLET (3/8 BSP)
13	OIL OUTLET (JIS 10K-65A)
12	OIL INLET (JIS 10K-15A)
11	Pt-100 - BEARING (6 WIRES - 2/BEARING)
10	EXCITER COMPARTMENT
9	Pt-100 - STATOR WINDING (3 WIRES - 2/PHASE) - INSIDE FRAME
8	AUXILIARY BOX 4 - SPACE HEATERS (1xM25x1.5)
7	AUXILIARY BOX 3 - EXCITER (1xM25x1.5)
6	AUXILIARY BOX 2 - RTD WATER, LEAKAGE DETECTOR (1xM25x1.5)
5	AUXILIARY BOX 1 - RTD STATOR AND BEARING (2xM25x1.5)
4	GENERATOR GROUNDING
3	SHAFT GROUNDING BRUSH - D.E. SIDE (QTY 1)
2	SPACE HEATER MAIN FRAME (950W)
1	GUIDE PIVOT

Model: SEW128	
OV: 4105257/20	F.D.: 26653/16
Output: 6000 kW	
Rated Voltage: 3300 V	
Poles: 8	
Frequency: 56,67 Hz	
Construction type: F1	
Speed: 700 rpm to 850 rpm	
Overspeed: 1377 rpm	
Duty cycle: S1	
Power factor: 1	
Protection degree: IP56	
Insulation class: F	
Temperature rise: class B	
Direction of rotation: Both	
Axial endplay: 12mm (6mm each side)	
Both bearings are insulated	
Rotor Inertia (J): 15300 lb.ft2	
Approx. Rotor weight: 15430 lbs	
Approx. Stator core and frame weight: 19160 lbs	
Approx. complete motor weight: 45200 lbs	

Representation of the machine is illustrative only. Some features may not be represented. For installation or maintenance, consult operation manual.

Protection:	MG1 - Parte 1	IEC 60034-5	
Dimension:	MG1 - Parte 4	IEC 60072	
Tolerance:	MG1 - Parte 4	ISO 286	
Key:	MG1 - Parte 4	IEC 60072	
Machined parts:		ISO 2786	
Weld Constr:		ISO 8015	
Castings:		ISO 8062	

GROVE MADSEN

GROSS WEIGHT		kg	NET WEIGHT		kg	SCALE	1:30	
500001281907		UPDATED MOTOR WEIGHT		CRODRIGO		MICHELB	09.03.2017	08
500001276625		UPDATED MAIN TERMINAL BOX		CRODRIGO		RICARDO6	22.02.2017	07
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	LBOLZAN	DIMENSIONAL SEW128		10004269698				
CHECKED				000	08			
RELEASED	RAFAELSOUZA							
REL DT	11.05.2016	WEN	JARAGUÁ DO SUL	ENGENHARIA DO PRODUTO		SHEET	1 / 1	

CERTIFIED
NOT SUBJECT TO CHANGES.

UNCONTROLLED COPY

RELEASED

ACD A1