WEG Solutions for Drilling
Large Motors and Generators

WEG Energy has the finest solutions for oil drilling applications. WEG is there with you, providing a competitive edge through enhanced technological capability and capacity for volume production. Our comprehensive motor and generator solutions can be utilized as:

**Top Drive Unit**
Operates the rotating drilling apparatus at the drill site. These motors are vertically oriented working on high overloads via VSD and installed in restricted space.

**Draworks Unit**
Hoisting unit that moves the traveling block up and down the tower. Usually driven by two horizontal motors in tandem and operated via VSD.

**Mud Pumping Unit**
Mud pump has a threefold purpose: lubrication and refrigeration of the drill bit and transportation of drilling debris up from the bottom of the hole. In general these motors are the same as those used on the Draworks unit.

**Energy Supply**
Generation of electrical power for the drilling station is achieved by direct coupled brushless generators.

**WEG’s contribution to these drilling applications:**
- High torque capability
- Rugged, rigid mechanical structure
- Light weight design with helicopter transport in mind
- Low temperature applications - artic duty
- Tapered or spline shaft ends with tight tolerances for special coupling requirements
- Superior electrical design (VPI, Sealed Windings, Encapsulated Windings)
- Forced ventilation with elimination of water and dirt
- Space efficient frame designs
- Dimensional flexibility for drop in fitment
- Bus bar located on the terminal box
- Overload and over-speed capability
- Continuous improvement approach

**What support is given to this segment?**
- Quick delivery - Project demands vary rapidly with oil prices and new projects released
- One stop shop (drives, LV standard motors and switchgear)
- Global presence
- Local support hot lines and available stock for emergencies
- Competitive pricing
Top Drive

**Scope**
TGA and TGV model high torque, form-wound traction motors.
Output: 400 to 1150HP
Voltage: 575/600V
Operation on Variable Speed Drive
Frames: 50 and 58 series
Frequency: 40 to 60Hz
Insulation: class H
Mounting: V1
Cooling: By ducts (IC37) or blower (IC06)
Suitable to DIVISION II, CLASS I, GROUP B/C/D, T3
Suitable under request to EX-n* classification and Marine ABS, DNV, Loyds and Others

**Standard Accessories/Features**
- Platinum RTD - two per phase
- Platinum RTD - one per bearing
- Form wound stator;
- Copper rotor bars

**Optional Accessories/Features**
- Differential pressure switch
- Encoder 1024 ppr

* Ingress protection IP44 or higher and final certification to be provided by OEM
Drawworks and Mud Pump

Scope
MGV, TGA and TGV model high torque, form-wound traction motors.
Output: 600 to 1500HP
Voltage: 575/600V
Operation on Variable Speed Drive
Frames: 58 to 80 series
Frequency: 40 to 60Hz
Insulation: class H
Mounting: F1/F2
Cooling: By ducts (IC37) or blower (IC06)
Suitable to DIVISION II, CLASS I, GROUP B/C/D, T3
Suitable under request to EX-n* classification and
Marine ABS, DNV, Loyds and Others

Standard Accessories/Features
- Platinum RTD - two per phase
- Platinum RTD - one per bearing
- Form wound stator
- Encapsulated windings
- Copper rotor bars

Optional Accessories/Features
- Differential pressure switch
- Encoder 1024 ppr
- AISI 4340 steel shaft
- Safety lock-out button
- Artic duty

* Ingress protection IP44 or higher and final certification to be provided by OEM
Energy Generation

**Scope**
GSA model electric generators.
Output: 600 to 2000kVA
Voltage: 600V
Frames: 50 and 88 series
Frequency: 60Hz
Insulation: class H
Mounting: F1/F2
Cooling: Self cooled (IC01)
Suitable under request to EX-n* classification and Marine ABS, DNV, Loyds and Others

**Standard Accessories/Features**
- Provisions for voltage regulator
- AISI 4140 steel shaft
- Electrically insulated NDE bearing
- Taconite bearing seals

**Optional Accessories/Features**
- Form-wound stator
- Hinged primary terminal box
- Voltage regulator
- Vertical / Horizontal jacking bolts

* Ingress protection IP44 or higher and final certification to be provided by OEM
### WEG Solutions for Drilling - Large Motors and Generators - Summary

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<tr>
<th>Model</th>
<th>TGA600</th>
<th>TGV400</th>
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