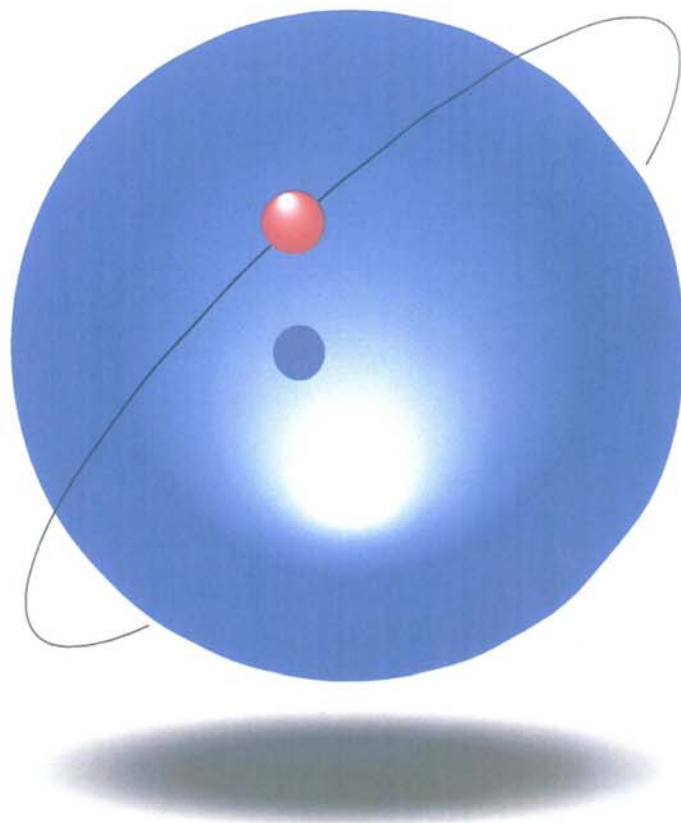


"TBH" COMPACT DESIGN REVERSE CIRCULATION DRILL



TONE

TOP DRIVE TYPE REVERSE CIRCULATION DRILL



TOP DRIVE REVERSE CIRCULATION DRILL

TBH

TOA-TONE BORING CO., LTD.

REVERSE CIRCULATION DRILL WITH COMPACT DESIGN AND HIGH DULABILITY

FEATURES

- A built-in hydraulic feed system provides optimum feed pressure to drill bit for various kinds of ground conditions from loose and unstable soil to hard compact layers.
- Very compact design of drill permits ease of drilling operation under conditions of confined space and restricted head room.
- Cutting removal is carried out by reverse circulation, ensuring complete and continuous removal of cuttings from hole bottom.
- The TBH system eliminates public nuisances such as noise and vibration.



PHOTO: TBH-8

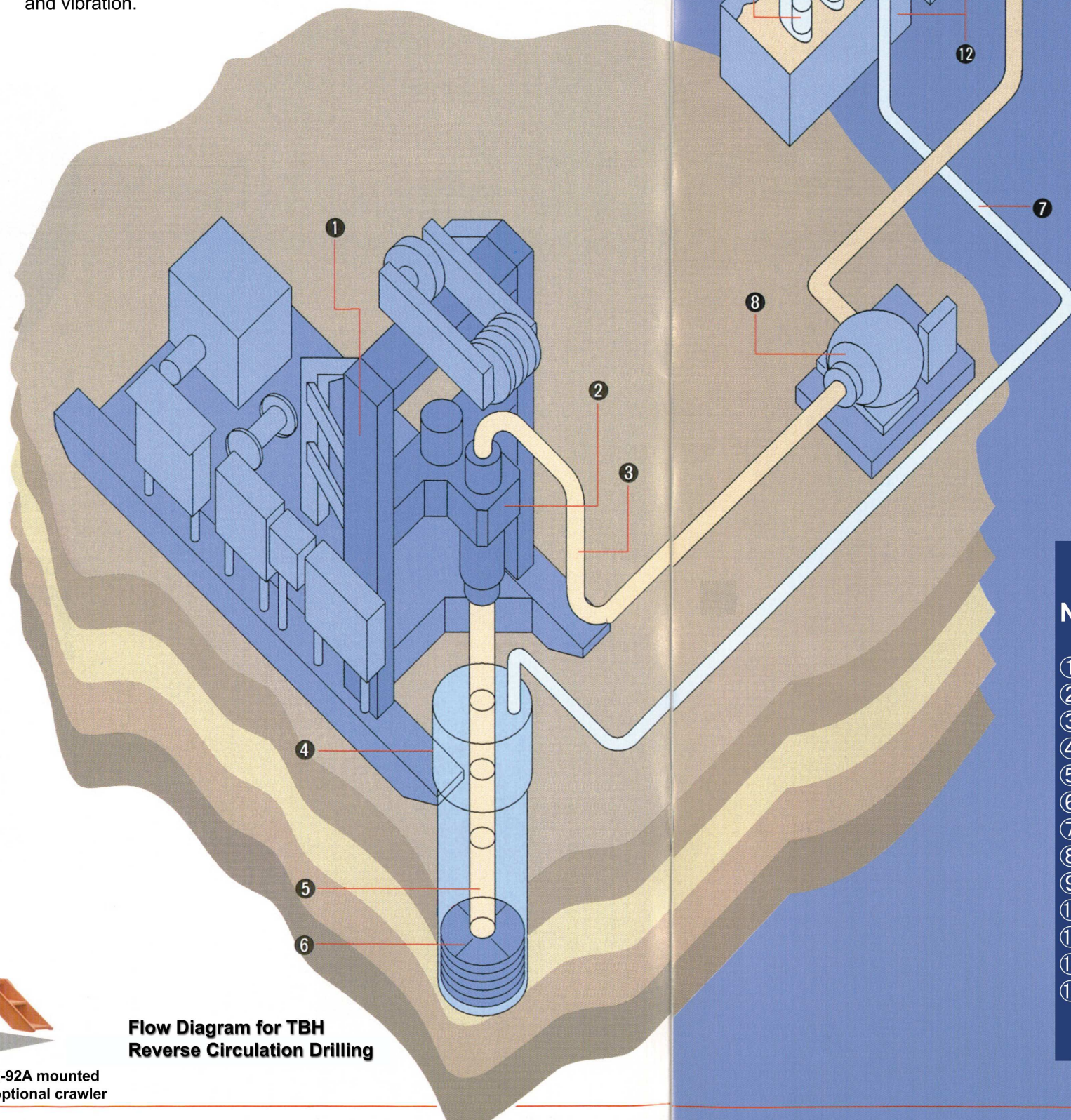
Scope of Applications

- Cast in place piling
- Installation of pre-cast piles or H-beams
- Underpinning construction
- Piled earth retaining wall
- Landslide prevention



PHOTO: TBH-92A mounted
on optional crawler

Flow Diagram for TBH
Reverse Circulation Drilling

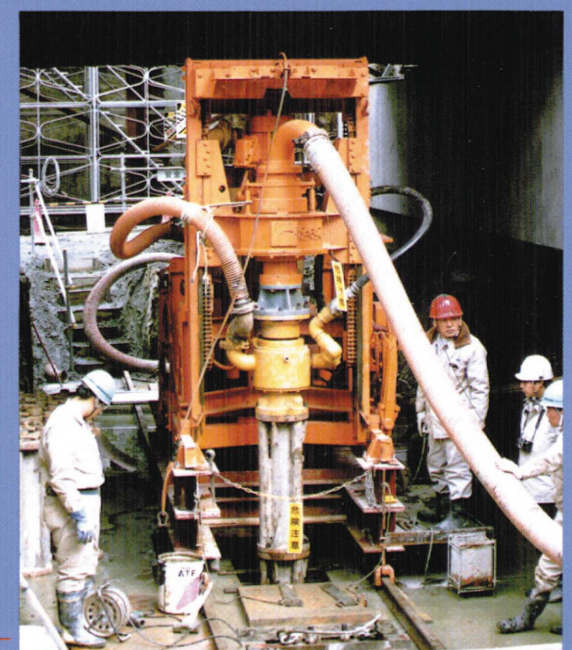


TOP DRIVE REVERSE CIRCULATION DRILL

TBH

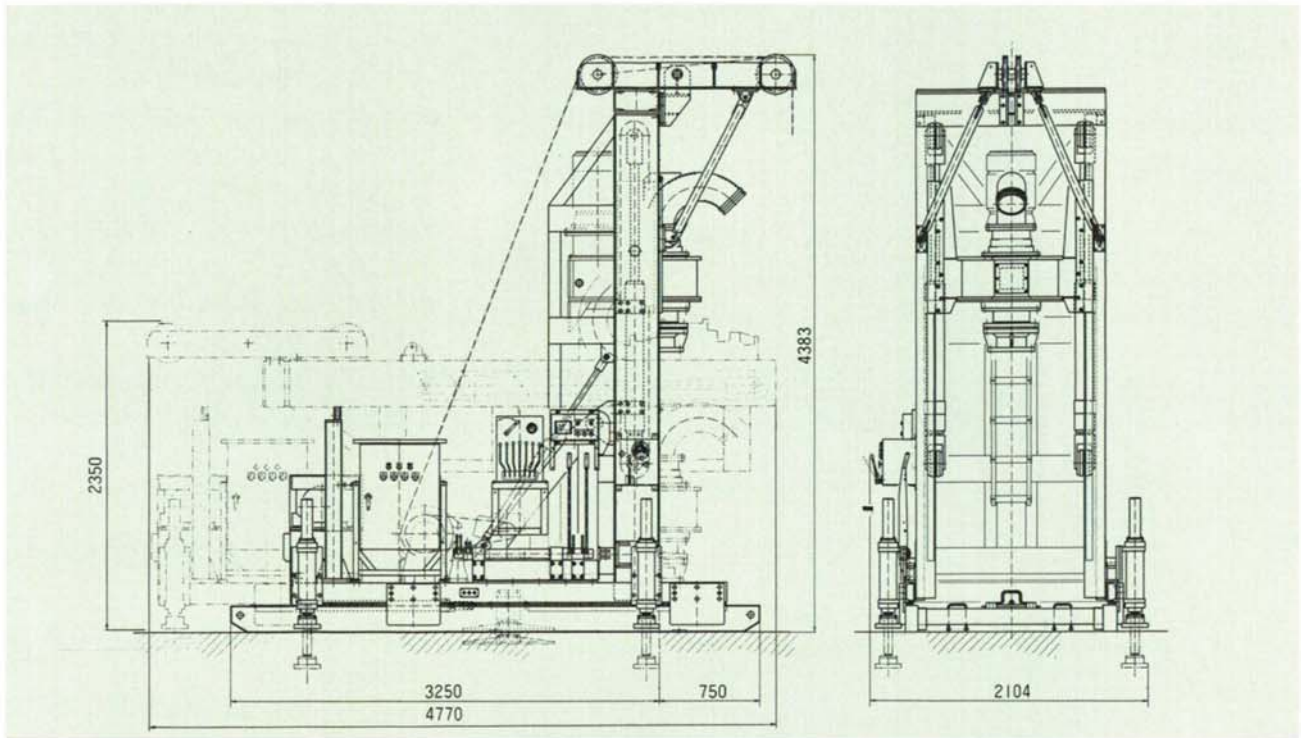
Name of Items

- ① TBH Drill Unit
- ② Rotary Head
- ③ Reverse Hose
- ④ Surface Casing
- ⑤ Reverse Rod
- ⑥ Reverse Wing Bit
- ⑦ Return Hose
- ⑧ Suction Pump
- ⑨ Sand Pump
- ⑩ Delivery Hose
- ⑪ Mud Screen
- ⑫ Slush Tank
- ⑬ Sludge Tank



TBH-8 Reverse Circulation Drill

Dimensions



Specifications

Drilling Capacity:

Depth: 50 m with suction pump
Hole diam.: 800 - 1500 mm

Power Unit:

Swivel head: 15 kW/6P
Hoist: 11 kW/4P
Hydraulic unit: 15 kW/4P

Swivel Head:

Type: Top head electric drive
Rotating speed: Low; 7.5 rpm.
High; 20 rpm.
Torque: Low; 17.6 kN-m
High; 6.3 kN-m
Spindle I.D.: 200 mm
Type of rod joint: 200 mm flange

Weight: Approx. 7,000 kg

Feed System:

Type: Hydraulic cylinder, dual feed chain drive
Max. feed: 10,000 kg
Max. balance: 10,000 kg
Feed stroke: 1,750 mm

Hoist:

Type: Planetary gear, band brake
Single line pull: 2,200 kg
Spooling capacity: 85 m with 12.5 mm wire rope

Mast:

Type: Hydraulic raised and lowered

Base:

Type: Skid base with hydraulic slide base

Slide stroke: 1,000 mm

Optional Device:

Slef-traveling device
Air-lifting swivel



TOA-TONE BORING CO., LTD.

Head Office: 3-7 Roppongi 7-chome, Minato-ku, Tokyo 106-8552, Japan

Phone: 03-5775-3939 **FAX:** 03-5775-3967

Factory: 1900-1 Mikkaichiba, Enzan, Koushu City 404-0047, Yamanashi Pref., Japan

Phone: 0553-20-2600 **Fax:** 0553-20-2660

Kantou Branch: 03-5662-3521

Sapporo Branch: 011-666-2131

Kanazawa Branch: 076-260-1434

Fukuoka Branch: 092-935-3969

Kansai Branch: 06-6649-0097

Touhoku Branch: 022-366-6260

Okayama Branch: 086-296-8566

URL: <http://www/toa-tone.jp>