

General®

471 Series DIG•R•TACH®

Direct-Drive Hydraulic Earth Auger Attachments



General's 471 DIG-R-TACH® ... derives power from the auxiliary hydraulic system of the carrier vehicle.

Increase your investment return and equipment versatility with the 471 Series DIG-R-TACH® hydraulically-powered earth auger attachments.

Specifically designed to perform with auxiliary systems of today's mini-skid loaders, excavators, compact loader backhoes and tracked loaders, the lightweight, compact 471 features a direct-drive configuration that is system-matched to balance high-drilling torque with proper auger-rotational speed. The result is faster drilling speeds with cleaner, more usable holes. For the majority of job applications, the economical 471 is significantly more productive than slower, heavier, more costly planetary-type auger attachments.

Direct-mounting to the new class of small- and agile- carrier vehicles is easy with the wide range of available mounting frames and brackets. The 471 accommodates a full line of flow rates and pressure settings to deliver the necessary torque for even the toughest soil conditions. In addition, versatility is expanded with up to 24-inch diameter, job-matched augers and auger extensions for fence erection, sign installation, general construction and landscaping applications.

General ... the worldwide leader in portable and mobile hole digging equipment.



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Can you really afford anything less?

A never-ending commitment to produce the best hole digging equipment is what sets General apart.

Features & Benefits

1 Universal joint swivel.

Direct mounts to a complete line of frames and brackets for popular loaders, backhoes and mini-excavators. Double-joint design delivers clean, vertical holes on hilly terrains. Full-length, sleeved-mounting bushings and plated pins reduce wear and extend service life.

2 Low-speed, high-torque motor.

Wheel-mount casting design incorporates larger driveshaft bearings with greater sideload capacity. Rated for 3000 lbs/in² (210 kg/cm²) hydraulic systems. Motor displacement balance inputs flow rates to deliver proper auger RPM speeds.

3 Debris guard.

Protects hydraulic motor, hoses and fittings against external damage while digging or in storage.

4 Protective guard.

Positioned directly under the hydraulic hose fittings to minimize impact damage from small rocks and other debris normally encountered when digging.

5 Direct-drive configuration.

Provides exceptional digging torque while eliminating the more complex and heavier gear- and chain-type reduction configurations. Reduced attachment weight better allows for smaller carrier vehicles to operate within their center of gravity envelope limits. Compact, in-line design produces clean, usable 48" (1219 mm) deep holes.

6 Thick walled housing assembly.

Precision machined from DOM-type steel tubing. Designed to provide proper support and alignment for bearings and auger driveshaft.

7 High-capacity ball bearings.

Single row and sealed, ball configuration. Eliminates direct thrust and bending loads to hydraulic motor driveshaft. Use of three bearings provides extended motor and auger driveshaft service life.

8 Externally-mounted bearing shield.

Nilos®-type sealing ring provides additional level of protection for auger driveshaft bearing seal. Keeps dirt and debris from breaching seal integrity.

9 Alloy steel driveshaft.

Connects directly to hydraulic motor driveshaft. Eliminates bearing and high pressure sealing problems when auger directly mounts to hydraulic motor driveshaft. Machined on ultra close-tolerance, CNC equipment from a single piece of high tensile, alloy steel. Heat treated for additional strength and durability.

10 Hexagon driveshaft configuration.

Industry standard 1-³/₈" (35 mm) hexagon provides exceptional torque-load capacity. Totally eliminates hole elongation and pin wear inherent to all round auger drive connections. Connects directly to General 4400 Series earth augers.



Designed for smaller, lightweight carrier vehicles.



General offers a complete line of earth augers.

Earth Augers for Lightweight Carrier Vehicles

Why would you attach those clumsy, heavy, higher-cost augers from large skid loaders and backhoes to the small, lightweight carrier vehicles of today? With General, you can job-match your augers and extensions for unequaled productivity and versatility.

The 471 Series DIG-R-TACH® incorporates the time-proven 4400 Series augers that work in tough soil conditions, without sacrificing structural integrity and service life. Lighter in weight, the DIG-R-TACH® helps maintain critical center of gravity limits on all small excavators and loaders, which is essential when fully extended dippersticks and booms are raised with an auger loaded with loose dirt. Less weight also makes it easier to handle and transport.

Features & Benefits of 4400 Series Augers

- Auger diameter marked for easy identification.
- 1-3/8" (35 mm) hexagon drive connection eliminates inherent wear problems of round-drive connection.
- Job-matched augers and auger extensions deliver 48" (1218 mm) effective digging length.
- Thick-walled steel axle absorbs heavy-torque loads and buckling stresses created during digging.
- Abrasion-resistant flighting throws cuttings toward auger axle to minimize clogging and drag.
- Flighting pitch is set to produce optimum material conveyance with minimal power requirements.
- Pengo®-type boring head configurations offer the most aggressive and cost effective design available for difficult soil conditions.
- All wear parts are field replaceable.



Improve your auger return on investment!

Keep Your Auger Inventory Working

With a drilling-industry standard 1-3/8" hexagon auger drive connection, the same 4400 Series earth augers used with the 471 DIG-R-TACH® can be interchanged with General's 300 Series portable hole diggers and 660 DIG-R-MOBILE®.



471 DIG-R-TACH®



330H Hole Digger



660 DIG-R-MOBILE®

S P E C I F I C A T I O N S

471 Series **DIG•R•TACH**®

MODEL

471 Series 12

471 Series 20

HYDRAULIC PARAMETERS

SYSTEM CONFIGURATION

Auxiliary hydraulic system of carrier vehicle (compact tractor loader backhoe, mini-excavator, compact skid loader, etc.) serves as power source. Low-speed, high-torque hydraulic motor transfers torque to separate auger driveshaft through direct-drive connection. Forward and reverse auger direction controlled by auxiliary hydraulic valve control device (4-way, three-position, spring return to neutral, cylinder-type spool required).

Auxiliary hydraulic system flow rate in GPM or lit/min determines auger rotational speed in RPM. Auxiliary hydraulic system pressure relief valve setting in PSI or kg/cm² determines actual digging torque in ft. lbs., or N.m. Improper flow rates and/or pressure relief values may cause component damage and not produce satisfactory digging performance for specific auger diameter and/or soil classification.

HYDRAULIC SYSTEM REQUIREMENTS

5 to 10 GPM (19-38 lit/min) flow range. 8 GPM (30 lit/min) optimum flow rate. 1500-3000 PSI (105-210 kg.cm²) hydraulic system pressure relief valve setting range.

7 to 12 GPM (27-46 lit/min) flow range. 11 GPM (42 lit/min) optimum flow rate. 1500-3000 PSI (105-210 kg.cm²) hydraulic system pressure relief valve setting range.

MAXIMUM DRILLING TORQUE

281 ft.lbs.. (381 N.m.) @ 2000 PSI (140 kg/cm²)
356 ft.lbs.. (482 N.m.) @ 2500 PSI (175 kg/cm²)
426 ft.lbs.. (578 N.m.) @ 3000 PSI (210 kg/cm²)

456 ft.lbs.. (616 N.m.) @ 2000 PSI (140 kg/cm²)
574 ft.lbs.. (775 N.m.) @ 2500 PSI (175 kg/cm²)
731 ft.lbs.. (987 N.m.) @ 3000 PSI (210 kg/cm²)

TYPICAL AUGER ROTATIONAL SPEED (RPM) AT SYSTEM FLOW RATES

89 RPM @ 5 GPM (19 lit/min)
144 RPM @ 8 GPM (30 lit/min)
180 RPM @ 10 GPM (38 lit/min)

73 RPM @ 7 GPM (26 lit/min)
104 RPM @ 10 GPM (38 lit/min)
125 RPM @ 12 GPM (45 lit/min)

AUGER

DESIGN

Auger construction features Pengo®-type, cast-steel boring heads, forged-steel teeth and cast-steel screw bits for maximum digging performance and versatility in a wide cross section of soil compositions. Thick, cross-sectioned helicoid or sectional-type auger flighting delivers strength and wear resistance. Flighting pitch is set to produce cleaner, more useable holes in sandy or granular-type soils. All boring-head wear parts are field replaceable.

DIAMETERS

4" (102 mm) to 24" (610 mm)

4" (102 mm) to 24" (610 mm)

LEAD AUGER AND DARD

A full line of lead augers and continuous-flighted auger extensions designed to extend the digging depth are available in stan-

AUGER EXTENSION LENGTH

36" (914 mm) effective lengths. A mounted 471 DIG-R-TACH® auger/extensions and excavated soil can result in substantial weight. Refer to carrier vehicle lift height and operational center of gravity envelope information to determine maximum allowable auger length and/or attachment weight combinations. Improper auger length and/or attachment weight combinations can result in property damage and/or personal injury.

FRAME

STRUCTURE

Unitized, welded-steel plate and tube with directional-limit stops

Unitized, welded-steel plate and tube with directional-limit stops

BEARINGS

High-capacity, sealed-ball type

High-capacity, sealed ball-type

PLUMB LINE MECHANISM

Double-jointed, universal-joint swivel with full-length sleeved pins

Double-jointed, universal-joint swivel with full-length sleeved pins

DRIVESHAFT CONNECTION TO AUGER

1³/₈" (35 mm) hexagon

1³/₈" (35 mm) hexagon

GENERAL

WEIGHT, LESS MOUNTING FRAME AND HOSE KIT

50 lbs. (23 kg)

52 lbs. (24 kg)

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