

# STANLEY®

## CD10 HYDRAULIC CORE DRILL



### USER MANUAL Safety, Operation and Maintenance



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New Britain, CT 06053  
U.S.A.  
58858 2/2015 Ver. 8

# DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY  
ÜBEREINSTIMMUNGS-ERKLÄRUNG  
DECLARATION DE CONFORMITE CEE  
DECLARACION DE CONFORMIDAD  
DICHIARAZIONE DI CONFORMITA



I, the undersigned:  
Ich, der Unterzeichnende:  
Je soussigné:  
El abajo firmante:  
Io sottoscritto:

**Weisbeck, Andy**

Surname and First names/Familiennamen und Vornamen/Nom et prénom/Nombre y apellido/Cognome e nome

hereby declare that the equipment specified hereunder:  
bestätige hiermit, daß erklaren Produkt genannten Werk oder Gerät:  
déclare que l'équipement visé ci-dessous:  
Por la presente declaro que el equipo se especifica a continuación:  
Dichiaro che le apparecchiature specificate di seguito:

1. Category: **Core Drill, Hydraulic**  
Kategorie:  
Catégorie:  
Categoria:  
Categoria:

2. Make/Marke/Marque/Marca/Marca **Stanley**

3. Type/Typ/Type/Tipo/Tipo: **CD10100**

4. Serial number of equipment:  
Seriennummer des Geräts:  
Numéro de série de l'équipement:  
Numero de serie del equipo:  
Matricola dell'attrezzatura:

**All**

Has been manufactured in conformity with  
Wurde hergestellt in Übereinstimmung mit  
Est fabriqué conformément  
Ha sido fabricado de acuerdo con  
E' stata costruita in conformità con

Directive/Standards Richtlinie/Standards Directives/Normes Directriz/Los Normas Direttiva/Norme	No. Nr Numéro No n.	Approved body Prüfung durch Organisme agréé Aprobado Collaudato
ISO ISO Machinery Directive	12100:2010 20643:2005 2006/42/EC:2006	Spitznas Spitznas Spitznas

5. Special Provisions: **None**  
Spezielle Bestimmungen:  
Dispositions particulières:  
Provisiones especiales:  
Disposizioni speciali:

6. Representative in the Union: **Patrick Vervier, Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.**  
Vertreter in der Union/Représentant dans l'union/Representante en la Union/Rappresentante presso l'Unione

Done at/Ort/Fait à/Dado en/Fatto a Stanley Hydraulic Tools, Milwaukie, Oregon USA Date/Datum/le/Fecha/Data 1-27-11

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Cargo/Posizione Director of Product Development

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## IMPORTANT

To fill out a Product Warranty Validation form, and for information on your warranty, visit [Stanleyhydraulics.com](http://Stanleyhydraulics.com) and select the Company tab, Warranty.  
(NOTE: The warranty Validation record must be submitted to validate the warranty).

**SERVICING:** This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

## ⚠ WARNING

**SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.**

**REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.**

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.



# SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual, and on the stickers and tags attached to or on the tool and hose(s).

These safety precautions are for your safety. Review them carefully before operating the tool or performing any maintenance or repairs.

Supervising personnel may specify additional precautions for your work area to comply with company policies and local safety regulations. Enter any added precautions in the space provided in this manual.

The CD10 Hydraulic Core Drill will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.



- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operations.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, head protection, and safety shoes at all times when operating the tool.
- Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Do not operate this tool without first reading the Operating Instructions.
- Never operate the tool if you cannot be sure that underground utilities are not present. Underground electrical utilities present an electrocution hazard. Underground gas utilities present an explosion hazard. Other underground utilities may present other hazards.
- Do not wear loose fitting clothing when operating the tool. Loose fitting clothing can get entangled with the tool and cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the **OFF** position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Failure to do so may result in damage to the quick couplers and cause overheating. Use only lint-free cloths.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. Operation at higher oil temperatures can cause operator discomfort and may cause damage to the tool.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Stanley Hydraulic Tools.
- Check fastener tightness often and before each use daily.
- **Warning:** Use of this tool on certain materials during demolition could generate dust potentially containing a variety of hazardous substances such as asbestos, silica or lead. Inhalation of dust containing these or other hazardous substances could result in serious injury, cancer or death. Protect yourself and those around you. Research and understand the materials you are cutting. Follow correct safety procedures and comply with all applicable national, state or provisional health and safety regulations relating to them, including, if appropriate arranging for the safe disposal of the materials by a qualified person.

# TOOL STICKERS & TAGS



Circuit Type C Sticker  
11206



Circuit Type D Sticker  
11207



CE Sticker  
28323



28409  
Composite Sticker

**NOTE:**  
THE INFORMATION LISTED ON THE STICKERS SHOWN, MUST BE LEGIBLE AT ALL TIMES.  
REPLACE DECALS IF THEY BECOME WORN OR DAMAGED. REPLACEMENTS ARE AVAILABLE FROM YOUR LOCAL STANLEY DISTRIBUTOR.

The safety tag (P/N 15875) at right is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.

**D A N G E R**

1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.  
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRICAL LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
  - A. **DO NOT** EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
  - B. **DO NOT** EXCEED RATED WORKING PRESSURE OF HYDRAULIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
  - C. CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. **DO NOT** FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.

**I M P O R T A N T**

**READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.**

**USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.**

**TAG TO BE REMOVED ONLY BY TOOL OPERATOR.**

**SEE OTHER SIDE**

**D A N G E R**

- D. **DO NOT** LIFT OR CARRY TOOL BY THE HOSES. **DO NOT** ABUSE HOSE. **DO NOT** USE KINKED, TORN OR DAMAGED HOSE.
3. **MAKE SURE** HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
4. **DO NOT** CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
5. **BYSTANDERS** MAY BE INJURED IN YOUR WORK AREA. **KEEP BYSTANDERS CLEAR** OF YOUR WORK AREA.
6. **WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.**
7. **TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.**

**I M P O R T A N T**

**READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.**

**USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.**

**TAG TO BE REMOVED ONLY BY TOOL OPERATOR.**

**SEE OTHER SIDE**

SAFETY TAG P/N 15875 (Shown smaller than actual size)

# HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with Stanley Hydraulic Tools. They are:

**Certified non-conductive** — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled **certified non-conductive** is the only hose authorized for use near electrical conductors.*

**Wire-braided** (conductive) — constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. *This hose is **conductive** and must never be used near electrical conductors.*

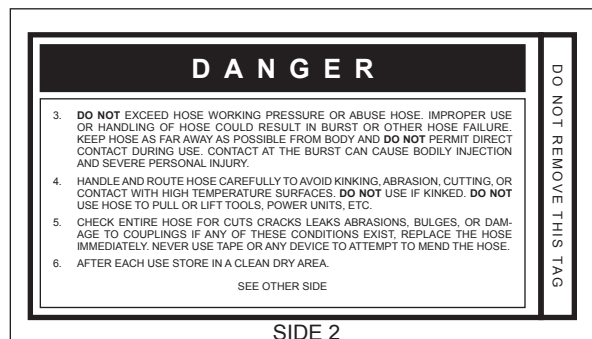
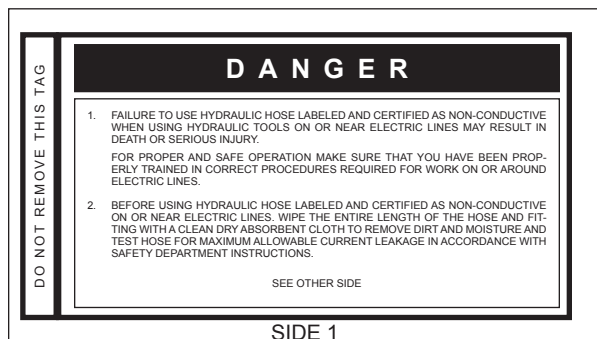
**Fabric-braided** (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

## HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

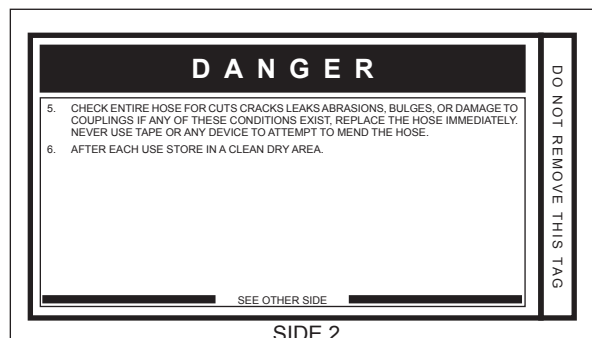
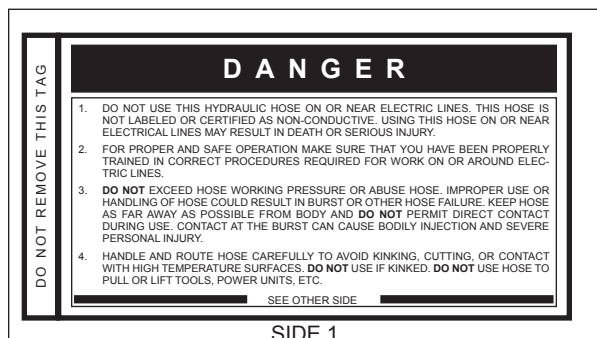
If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

### THE TAG SHOWN BELOW IS ATTACHED TO “CERTIFIED NON-CONDUCTIVE” HOSE



(Shown smaller than actual size)

### THE TAG SHOWN BELOW IS ATTACHED TO “CONDUCTIVE” HOSE.



(Shown smaller than actual size)

# HOSE RECOMMENDATIONS

## Tool to Hydraulic Circuit Hose Recommendations

The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Stanley Hydraulic Tools tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

**All hydraulic hose must meet or exceed specifications as set forth by SAE J517.**

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
<b>Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks</b>								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
<b>Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS</b>								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
10-13	38-49	up to 50	up to 15	3/4	19	Return	2500	175
10-13	38-49	51-100	15-30	5/8	16	Both	2500	175
10-13	38-49	100-200	30-60	5/8	16	Pressure	2500	175
13-16	49-60	up to 25	up to 8	3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
				5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
				3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175

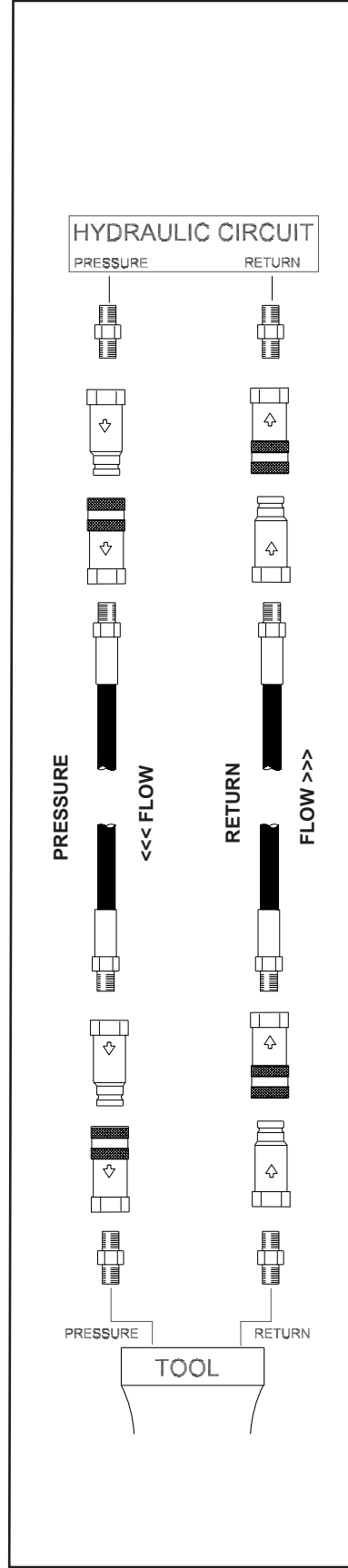


Figure 1. Typical Hose Connections



# HTMA / EHTMA REQUIREMENTS

## HTMA / EHTMA REQUIREMENTS

### HTMA

#### HYDRAULIC SYSTEM REQUIREMENTS

### TOOL TYPE

#### TYPE I

#### TYPE II

#### TYPE RR

#### TYPE III

Flow Range	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	9-10.5 gpm (34-40 lpm)	11-13 gpm (42-49 lpm)
Nominal Operating Pressure (at the power supply outlet)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)
System relief valve setting (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)	2100-2250 psi (145-155 bar)
Maximum back pressure (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
Temperature: Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)
<b>NOTE:</b> Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
Filter Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
Hydraulic fluid Petroleum based (premium grade, anti-wear, non-conductive) Viscosity (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
<b>NOTE:</b> When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				
*SSU = Saybolt Seconds Universal				

### EHTMA HYDRAULIC SYSTEM REQUIREMENTS

### CLASSIFICATION



Flow Range	3.5-4.3 gpm (13.5-16.5 lpm)	4.7-5.8 gpm (18-22 lpm)	7.1-8.7 gpm (27-33 lpm)	9.5-11.6 gpm (36-44 lpm)	11.8-14.5 gpm (45-55 lpm)
Nominal Operating Pressure (at the power supply outlet)	1870 psi (129 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)
System relief valve setting (at the power supply outlet)	2495 psi (172 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)

**NOTE:** These are general hydraulic system requirements. See tool specification page for tool specific requirements

# OPERATION

## GENERAL OPERATION

The tool comes with a set of accessories which may be customized by each purchaser, so as to facilitate performance of all work occurring within the scope of his specific application. Tools included are for mounting and dismounting.

- Single-head wrench SW 24
- Single-head wrench SW 32
- Single-head wrench SW 41
- Hex wrench SW 5

Basically, you differentiate between freehand drilling and stand-aided drilling. The operating procedures to be adhered to for the two different operating modes are described below.

## DRILL BIT INSTALLATION

### **⚠ WARNING**

Before you start changing the drill bit, make sure that the tool is disconnected from the power source in order to avoid unintentional operation of the tool and injury. Disconnect only unpressurized hoses.

Use a single-head wrench SW 24 (small drill bit) or SW 41 (large drill bits) and a single-head wrench SW 32 to manually unscrew the drill bit to be removed and to screw on the new one. There is no need to use any additional tools.

## DIMENSION OF THE DRILL BIT

Drill head thread: male 1 – 1/4 in. UNC and female R 1/2 in.

Which drill bit at which speed?

	Gear #1	Gear #2	Gear #3
Speed (1/min)	380	900	1800
Drill bit dia. (mm)	100–162	40–100	20–40
Cutting speed (m/s)	2–3, 5	2–4, 5	2–4

## CHECK THE POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 5.8–13.2 gpm / 22–50 lpm at 950–2000 psi/66–140 bar.
2. Make certain that the hydraulic power source is equipped with a relief valve set to open at 2100–2250 psi/145–155 bar.

3. Check that the hydraulic circuit matches the tool for open-center (OC) operation.

## CHECK THE TOOL

1. Make certain all tool accessories are correctly installed. Failure to install tool accessories properly can result in damage to the tool or personal injury.
2. There should be no signs of leaks.
3. The tool should be clean and dry with all fittings and fasteners tight.

## CONNECT HOSES

1. Wipe all hose couplers with a clean lint-free cloth before making connections.
2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. Connect the return hose first and disconnect it last to eliminate or reduce trapped pressure for easier quick-connect fitting attachment.

### NOTE:

**If uncoupled hoses are left in the sun, pressure increase within the hoses can make them difficult to connect. When ever possible, connect the free ends of hoses together.**

3. Observe the flow indicators stamped on the hose couplers to ensure that the flow is in the proper direction. The female coupler on the tool's IN port is the inlet coupler.
4. Squeeze the drill trigger momentarily. If the drill does not operate, the hoses might be reversed. Verify correct connection of the hoses before continuing.

## FREEHAND DRILLING

1. Observe all safety precautions.
2. Mount the spot-drilling aid onto the centering collar to ensure precise positioning.
3. Screw on the desired drill bit (up to max. Ø 80 mm approximately 3 inches). Refer to the DRILL BIT INSTALLATION for details. Manual tightening is sufficient because the drill bit will automatically fasten further during drilling.
4. Connect the tool to water supply. For this purpose the device comes with a 10 liter pump barrel, which has to be pressurized first. You may alternatively connect the device to a water tap, using the "Gardena" hose couplings. Maximum water pressure is 60 psi/4 bar.
5. Finally connect the tool to the power source.

# OPERATION

6. Move the hydraulic circuit control valve to the ON position.
7. Regulate the water valve to adjust the water supply flow as desired.
8. With the so prepared drill, you may now proceed to carry out your work.

## ⚠ CAUTION

Never switch into gear #1 in freehand drilling operation. This delivers the highest torque.

9. Put the drill in drilling position and squeeze the trigger to activate the drill.

## ⚠ WARNING

To avoid injury, do not use the valve trigger lock in freehand drilling operation! Use valve trigger lock in stand-aided drilling operation only!

10. Release the trigger to stop the drill.
11. The handle and the spot-drilling aid enable controlled manual operation of the drill.

## ⚠ CAUTION

Monitor continuously the water supply to ensure that sufficient water is supplied to the cut surface to avoid unnecessary wear of drilling equipment.

12. To change drill bits, proceed as described above. Adhere to safety instructions!
13. For dismantling the drill upon completion of drilling work, follow the mounting instructions in reverse order.

## STAND-AIDED DRILLING

First, fix the stand at the point where you wish to drill the opening or hole. To do so, drill a hole matching the size of the corresponding screw anchor screw the stand onto the surface. Align the stand such that the drill bit will make contact with the surface precisely at the point where you want to drill the opening or hole.

1. Insert the drill from above into the corresponding seat and fasten the core drill by means of the hex head socket wrench SW 5.
2. Now, manually screw the corresponding drill bit from below onto the drill bit adapter. Manual tightening is sufficient because the drill bit will automatically fasten further during drilling operation.
3. If necessary to attain an angled drill hole, adjust the stand position by swiveling the arm of the stand.
4. Connect the tool to water supply. For this purpose the device comes with a 10 liter pump barrel, which has to be pressurized first. You may alternatively connect the device to a water tap, using the "Gardena" hose couplings. Maximum water pressure is 60 psi/4 bar.
5. Finally connect the tool to the power source.
6. Move the hydraulic circuit control valve to the ON position.
7. To operate the drill, regulate check valve to adjust the water supply flow as desired.
8. With the so prepared drill, you may now proceed to carry out your work.
9. Squeeze the trigger to activate the drill and press valve trigger fixing key to ensure comfortable working.

## ⚠ CAUTION

Monitor continuously the water supply to ensure that sufficient water is supplied to the cut surface to avoid unnecessary wear of drilling equipment.

10. You may continuously control the advance motion of the drill by adjusting the star knob at the side of the drilling stand.
11. To switch off the machine, unlock the valve trigger fixing key. Then shut off the water supply.

# OPERATION

12. To change drill bits, proceed as described above. Adhere to safety instructions!
13. For dismounting the drill upon completion of drilling work, follow the mounting instructions in reverse order.

## CAUTION

When drilling into a structure that might contain electrical wiring, be sure to know the location of the wiring and avoid drilling into it. The housing can carry electrical current from live electrical wires into which the drill is accidentally drilled resulting in injury or death.

## COLD WEATHER OPERATION

If the drill is to be used during cold weather, preheat the hydraulic fluid at low engine speed. When using the normally recommended fluids, fluid temperature should be at or above 50 °F/10 °C (400 ssu/ 82 centistokes) before use. Damage to the hydraulic system or drill can result from use with fluid that is too viscous or too thick.

## TOOL PROTECTION & CARE

### NOTICE

In addition to the Safety Precautions found in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow (see Specifications) in this manual for correct flow rate and model number. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

# TROUBLESHOOTING

If symptoms of poor performance develop, the following chart can be used as a guide to correct the problem. When diagnosing faults in the tool, always check that the hydraulic power source is supplying the correct hydraulic flow and pressure to the tool as listed in the following table. Use a flow meter known to be accurate. Check the flow with the hydraulic fluid temperature at least 80 °F/27 °C.

Symptom	Possible Cause	Solution
Tool will not start.	Power not being supplied.	Check to make certain that both hoses are connected.
		Turn hydraulic circuit control valve ON.
	Defective quick disconnect.	Check each disconnect separately. Replace as necessary.
	Jammed motor.	See your authorized dealer for service.
	Flow reversed through hoses.	Correct the power source control valve position. Prevent reverse flow by using only one port from the valve for pressure, the return tool hose to the cooler and the filter line. Correct the quick-disconnect male/ female routing per instructions and the arrows on the fittings.
Low drilling torque.	Incorrect hydraulic flow.	Check that the hydraulic power source is producing 5.8–13–2 gpm /22–50 lpm at 950–2000 psi /66–140 bar.
	Defective quick disconnect.	Check each disconnect separately.
	Hydraulic circuit relief set too low, hoses too restrictive or the hydraulic fluid is too thick.	Set relief valve at 2100 psi / 145 bar.
	Fluid Restriction in hose or valve. Excess back pressure.	Locate and remove restrictions.
		Use correct fluid.
		Fluid not warmed-up. Preheat system.
		Hoses too long for hose I.D. Use shorter hose.
	Priority flow control valve is malfunctioning.	See your authorized service dealer for replacement.
Flow reversed through hoses.	Correct the power source control valve position. Prevent reverse flow by using only one port from the valve for pressure, the return tool hose to the cooler and the filter line. Correct the quick-disconnect male/ female routing per instructions and the arrows on the fittings.	
Too low slip clutch torque.	Inspect and replace slip clutch washers if necessary. Set torque to 20±1,5 Nm, 15±1 lbf.ft. See your authorized service dealer for repair. Do not overload drill to avoid wear of slip clutch.	

# TROUBLESHOOTING

Symptom	Possible Cause	Solution
Tool runs too fast.	Incorrect hydraulic flow.	Check that hydraulic power source is not producing over 13.2 / 50 lpm at 950-2000 psi / 66-149 bar.
	Hydraulic flow reversed.	Correct the tool hoses, IN and OUT per instructions and if the power supply valve is reversible, reconnect the tool return hose to the oil cooler or to the filter directly.
	Priority valve faulty.	Do not separate modules. Remove inspect and replace priority valve if necessary. See your authorized service dealer for replacement.
Trigger operation erratic. Control difficult.	Trigger mechanism blocked.	Do not separate modules. Clean trigger area. Adjust trigger.
Fluid leak at air gap between motor and valve housing.	Motor capscrews loose.	Tighten to recommended torque (10 Nm = 7, 5 lbf.ft).
	Motor O-rings worn.	See your authorized dealer for repair.
	Motor cap/main housing damaged.	See your authorized dealer for repair.
	Hydraulic pressure and return hoses reversed.	Correct hose connections.
Fluid gets too hot. Power unit working hard.	Open center tool on a closed center circuit or vice versa.	Use tools to match circuit.
	Circuit relief set too low.	Adjust relief valve to 2100-22500 psi/145-155 bar.
	Too much fluid getting through tool.	Adjust flow to 13.2 gpm/50 lpm maximum.
	Circuit is generating high heat with flow controls.	Use pump size and rpm for producing needed flow only. Eliminate circuit heating causes.
	Circuit has contaminants that have caused wear and high heat generation.	Replace worn pump and valves. Install a large clean filter and keep the fluid clean.
Gearshift knob turns hard.	Oil leak at motor shaft seal into gearbox causes high pressure in gearbox.	See your authorized dealer for repair.
No gearshift function.	Shifter pin worn or broken.	See your authorized dealer for repair.
Water leaking out of shaft seal or side hole.	Output shaft seals worn.	See your authorized dealer for repair.
	Water pressure too high. Seal damaged.	Maximum water pressure is 60 psi/4 bar.

# MAINTENANCE

Good maintenance practice keeps the core drill on the job and increases its service life.

The most important maintenance practice is to keep the hydraulic fluid clean at all times. Contaminated fluid causes rapid wear and/or failure of internal parts.

Follow the procedure contained in the HYDRAULIC SYSTEM REQUIREMENTS section of this manual to ensure peak performance from the tool.

Do not disassemble the tool until you know whether the problem is in the hydraulic power supply, the gearbox module, or the power and control (rear) module. Then only disassemble the tool as necessary to repair as required. **KEEP CONTAMINANTS SUCH AS DIRT AND GRIT AWAY FROM INTERNAL PARTS AT ALL TIMES.**

Always determine and correct the cause of the problem prior to reassembly. Further wear and tool failure can result if the original cause is not corrected.



# SPECIFICATIONS

Pressure .....	2000 psi/140 bar
Water Pressure .....	Max. 60 psi/4 bar
Maximum Back Pressure .....	250 psi/17 bar
Weight .....	18.7 lbs./8.5 kg
Overall Length .....	19.3 in./490 mm
Maximum Fluid Temperature .....	140 °F/60 °C
Capacity .....	3.6 hp/2.8 kW
Flow Range .....	5–13 gpm/20–50 lpm
Maximum Flow .....	13 gpm/49 lpm
Porting .....	-8 SAE O-ring
Water Connection .....	Gardena System
Free Speed .....	1st Gear: 380 rpm 2nd Gear: 900 rpm 3rd Gear: 1800 rpm
Drill Bit Connection .....	1-1/4 in. UNC male/R 1/2 in. Female
Hydraulic Connection .....	Quick Couplers 1/2 in. FF
Hose Diameter .....	.500 in./12 mm
Sound Pressure .....	80 DBA @ 1m.
Vibration Level .....	0.82 m/s <sup>2</sup>

## ACCESSORIES

Anchor Stand .....	62275
Motor Mount .....	41239
7/8 in. Core Bit with Crown .....	41241
1 in. Core Bit with Crown .....	41242
1-1/4 in. Core Bit with Crown .....	41243
2 in. Core Bit Segmented .....	41244
3 in. Core Bit Segmented .....	41245
4 in. Core Bit Segmented .....	41246
6 in. Core Bit Segmented .....	41247
Water Tank .....	

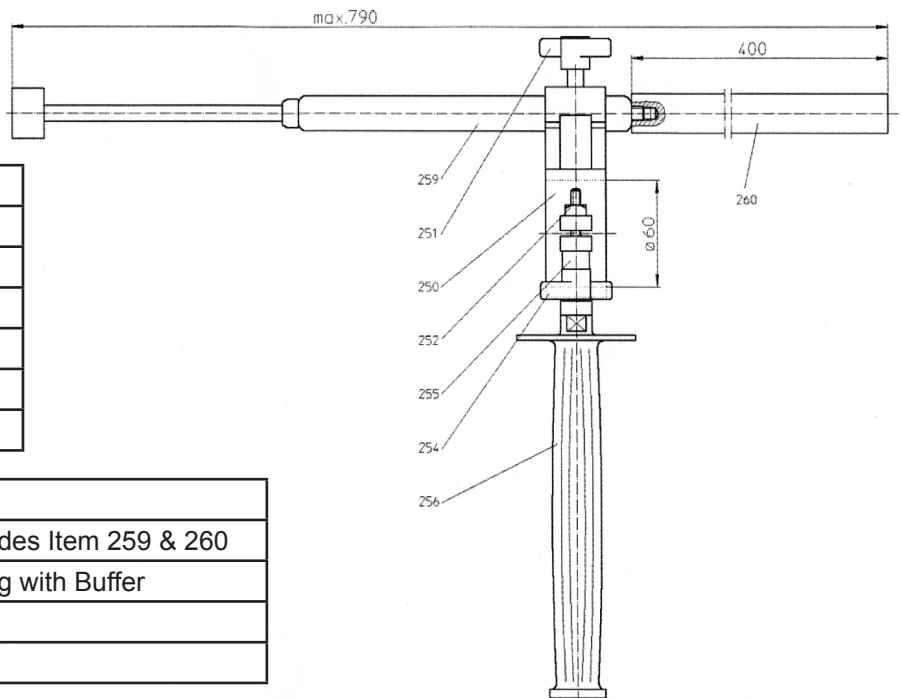
### Centering Aid Handle Assy 41252

#### CLAMP CLIP ASSY P/N-41612

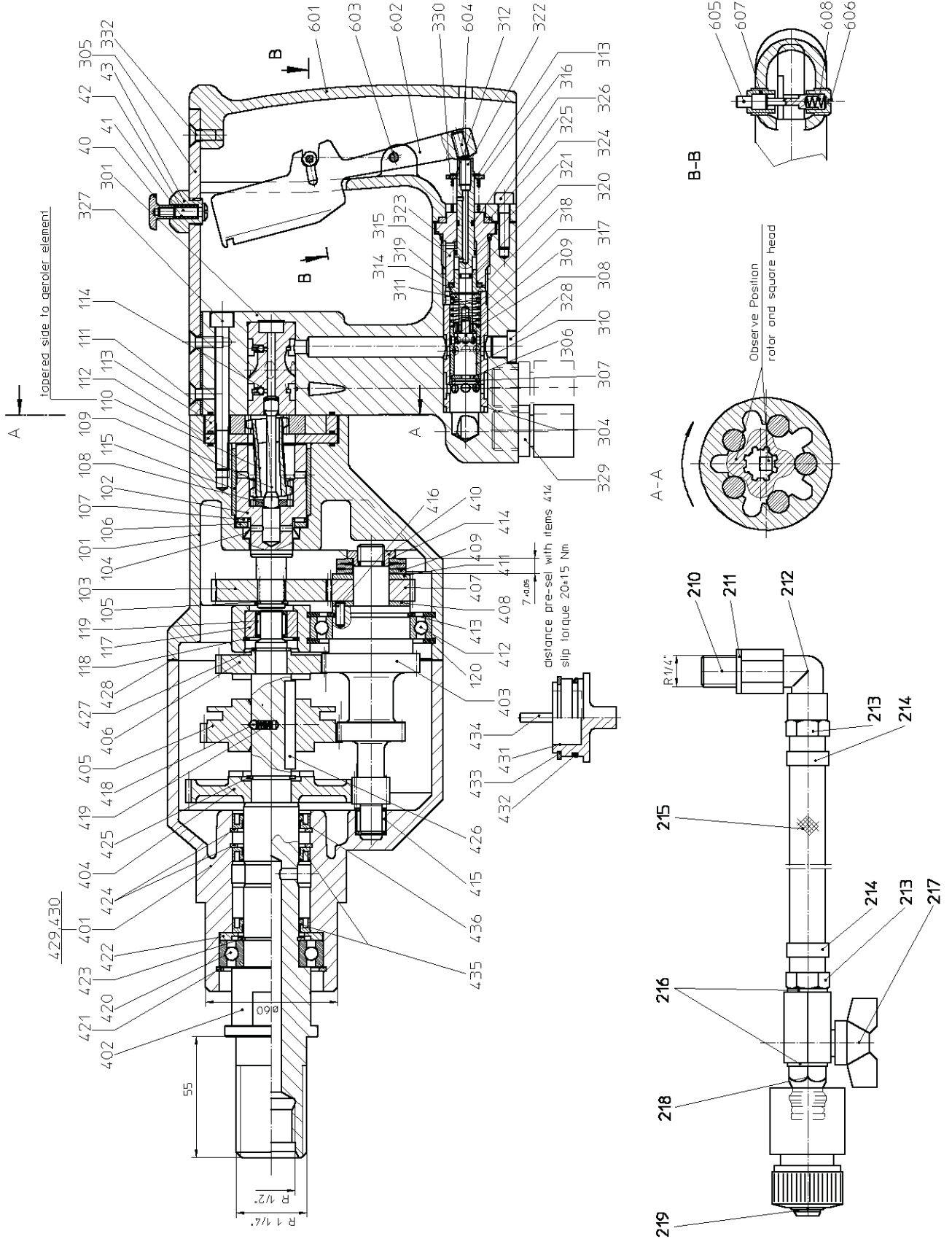
Includes Item 250 thru 256

ITEM #	PART NO.	DESCRIPTION
250	41613	Clamp Clip
251	41614	Screw, Locking
252	41616	Nut, Square
254	41621	Washer
255	41622	Distance Ring
256	41623	Handle

ITEM #	PART NO.	DESCRIPTION
	41608	Centering Aid, Includes Item 259 & 260
259	41609	Gas-pressure Spring with Buffer
260	41611	Extension Rod
	56607	Centering Aid Tip



# CD10 PARTS ILLUSTRATION



# CD10 PARTS LIST

ITEM	P/N	QTY	DESCRIPTION
	28409	1	COMPOSITE SAFETY DECAL (NOT SHOWN)
	40507	1	HOSE SET WITH QUICK COUPLERS (NOT SHOWN)
	41378	1	CONNECTING NIPPLE (NOT SHOWN)
	44968	1	CD10 NAME TAG
	41249	1	MOTOR ASSY
101	41253	1	MOTOR HOUSING
102	41254	1	OUTPUT SHAFT
103	41255	1	SPUR GEAR
104	41256	1	SHAFT SEALING
105	41257	1	SNAP RING
106	41258	1	THRUST WASHER
107	41259	1	THRUST BEARING
108	41260	1	SHAFT SPACER
109	41261	1	SPOOL DRIVE
110	41262	1	DRIVE
111	41263	3	O-RING
112	41264	1	SPACER PLATE
113	41265	1	GEROLER ASSY
114	41266	1	SPOOL
115	41267	1	BEARING
117	41624	1	BEARING RING
118	41268	1	SNAP RING
119	41269	1	NEEDLE BEARING
120	41270	1	SNAP RING
	41252	1	CENTERING AID HANDLE ASSY
	41608	1	CENTERING AID
259	41609	1	GAS PRESSURE SPRING W/BUFFER
260	41611	1	EXTENSION ROD
261	56607	1	BUFFER
	41612	1	CLAMP CLIP ASSY
250	41613	1	CLAMP CLIP
251	41613	1	LOCKING SCREW
252	41616	3	SQUARE NUT
254	41621	2	WASHER
255	41622	4	DISTANCE RING
256	41623	1	HANDLE
	41250	1	THREE-SPEED GEARBOX ASSY
401	41271	1	BEARING HOUSING
402	41272	1	OUTPUT SHAFT
404	41273	1	SPUR GEAR
405	41274	1	NOTCHED WHEEL
406	41275	1	SPUR GEAR
415	41276	1	NEEDLE BEARING
418	41277	1	BALL

ITEM	P/N	QTY	DESCRIPTION
419	41278	1	COMPRESSION SPRING
420	41279	1	GROOVED BALL BEARING
421	41280	1	SNAP RING
422	41281	1	WASHER
423	41284	1	SNAP RING
424	41286	1	SNAP RING
425	41287	1	SNAP RING
426	41298	1	FEATHER KEY
427	41348	1	SNAP RING
	41349	1	GEARSHIFT LEVER ASSY
431	41361	1	GEARSHIFT LEVER
432	41362	1	O-RING
433	41373	1	SNAP RING
434	41375	1	DOWEL PIN
435	41376	2	RADIAL SHAFT SEALING
436	41377	1	RADIAL SHAFT SEALING
438	41378	1	CONNECTING NIPPLE
	41379	1	COUNTERSHAFT ASSY
403	41380	1	GEAR SHAFT
407	41381	1	SPUR GEAR
408	41382	1	WASHER
409	41383	3	BELLEVILLE BEARING
410	41384	1	NUT
411	41385	1	WASHER
412	41386	1	GROOVED BALL BEARING
413	41387	1	SNAP RING
414	41388	1	SHIM
	41389	1	SHIM
416	41390	1	DOWEL PIN
428	41391	1	SEAL
429	41392	4	FILLISTER-HEAD SCREW
430	52661	2	DOWEL PIN
	41394	1	SWIVELING SCREWING ASSY
210	41587	1	CONNECTING PIECE
211	52662	1	GASKET
212		1	ELBOW
213		1	HOSE CONNECTOR
214		2	CLAMP
215		1	HOSE
216	41398	2	GASKET
217		1	STOPCOCK
218	41586	1	CONNECTING PIECE
219	41588	1	WATER STOP GARDENA 1/2 IN.
	41251	1	HANDLE ASSY
301	41590	1	VALVE HOUSING ASSY

# CD10 PARTS LIST

ITEM	P/N	QTY	DESCRIPTION
305	41591	1	BAR
306	41593	1	GLAND
313	41062	1	SNAP RING
316	41065	1	COMPRESSION SPRING
324	41594	1	SWIVEL RING-SEGMENT
325	40957	1	FILLISTER-HEAD SCREW
327	41595	5	FILLISTER-HEAD SCREW
328	41075	3	PLUG
329	09546	2	HOSE ASSY
332	41596	4	SCREW
601	41597	1	HANDLE
602	41598	1	VALVE LEVER
603	41599	1	DOUBLE-NOTCHED PIN
604	41600	1	SCREW
605	52663	1	LOCK BOLT
606	52664	1	BUSHING
607	52665	1	BUSHING
608	52666	1	COMPRESSION SPRING
	24069	1	COUPLER SET (NOT SHOWN)
	41601	1	VALVE ASSY
307	41056	1	SNAP RING
308	41057	1	FILLISTER-HEAD SCREW
309	41058	1	WASHER
310	41059	1	CONTROL PISTON
311	41060	1	SPRING SEAT
312	41061	1	PIN
314	41063	1	BUSHING
314	41064	1	GUIDE
317	41066	1	COMPRESSION SPRING
318	41067	1	SNAP SPRING
319	41068	1	O-RING
320	41069	1	O-RING
321	41070	1	O-RING
322	41071	1	SCREW
323	41602	1	O-RING
326	41073	1	O-RING
330	52660	1	WASHER
	41603	1	VALVE LEVER LOCKING ASSY
40	41604	1	HOUSING
41	41605	1	LATCH PIN
42	41606	1	COMPRESSION SPRING
43	41607	1	PUSH BUTTON

SERVICE PARTS	
44969	FILTER ELEMENT
44970	GASKET
44971	MUFFLER ELEMENT
44972	STAND GASKET
45111	SEAL KIT INSTRUCTION
45110	SEAL KIT



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