

OPERATING AND MAINTENANCE MANUAL



HYDRAULIC SPREADER FOR SPOT WELD DESTRUCTION

EHD 860 S

EHD 880 S

EHD 550 S

Issue MARCH 2004

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I - DESCRIPTION

Hydraulic spot weld destruction spreader : EHD860 S /EHD 880 S / EHD 550 S

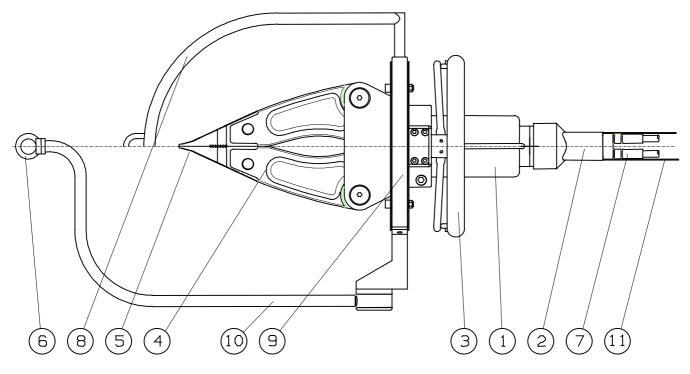


Figure 1

- 1 Double acting control cylinder
- 2 Deadman's control handle
- 3 Carrying handle with or without safety system.
- 4 Spreader arms
- 5 -Barbed tips
- 6 Suspension ring
- 7 Quick connect couplers with hydraulic hose
- 8 Handle suspension system
- 9 Gyroscopic system
- 10 Swan neck suspension system
- 11 Hose protection sleeve.



II Operating instructions

Hydraulic spreaders & accessories: EHD860 S/EHD 880 S / EHD 550 S

1.1 Important receiving instructions

Visually inspect all components for shipping damage. If any damage is found, notify the carrier immediately. Shipping damage is not covered by warranty. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

COMPLIANCE WITH REGULATIONS.

This material complies:

With the terms of articles R233-85 to R233-106 of the work code and the prescriptions of Decree N° 80-544 of 15 July 1980.

Read all instructions, warnings and precautions to be taken carefully. Follow all safety precautions to avoid personal injury or property damage during system operation

HYDR'AM cannot be held responsible for damage or injury resulting from unsafe use of the product, and/or lack of maintenance. When in doubt contact HYDR'AM as to safety precautions and applications. TO PROTECT YOUR WARRANTY ONLY USE HYDR'AM HYDRAULIC OIL OR EQUIVALENT.

By following the instructions you can ensure your own safety and keep your equipment in good condition.

1.2 Safety instructions

Read all instructions carefully before operating the equipment. Only use this equipment for the task it was designed for. When in doubt or in case of ambiguity contact your supplier. Always wear personal protection equipment such as safety glasses, head covering, face visor, gloves protective clothing and safety shoes. When handling tools use both hands and make sure the objects being handled are supported. Hold the tool with one hand on the carrying handle and the other on the control handle. If any irregularities occur during operation, immediately stop the tool and refer to the trouble shooting table in section 6. Never disconnect quick connect couplers while the hydraulic unit is running. Only use HYDR'AM accessories. The tool must be stored with the arms slightly open. Make sure the safety label is visible. If repairs are necessary they must be done qualified personnel approved by *HYDR'AM*.

2.0 Product description

HYDR'AM EHD860S/880S/550S/750S spreaders are double acting tools. They comply with French standards. NFS 61.571. To spread or to unite objects, see §3.

2.1 Hydraulic Spreader EHD860S/880S/550S.

Refer to figure 1 page 1 for the description of the parts of the spreader.

- 2.1.l. Double acting cylinder to provide the spreading and uniting performance
- 2.1.2. Integrated deadman's handle which moves automatically into the neutral position when the handle is released. The spreader arms will stop and maintain their actual position.
- 2.1.3. Normal carrying handle or with safety devise. It is essential to fully tighten up the integrated safety handle to start the motor..
- 2.1.4. Spreader arms in light alloy
- 2.1.5. Spreader tips, barbed for optimum grip on parts and metal sheets.
- 2.1.6. Suspension ring
- 2.1.7. Hydraulic couplers connecting the tool to the hydraulic unit
- 2.1.8. Handle suspension system
- 2.1.9.Gyroscopic system enabling tool use in any position
- 2.1.10. Swan neck suspension system.
- 2.1.11.Hose protection sheath

3.0 Operating the EHD860S/880S/550S/750S spreaders.

An electric motor unit powers the spreader. For start up and correct operating procedures see the unit instruction sheets. The maximum working pressure of the spreaders is 700 bar.

IMPORTANT: Before using these tools which develop considerable force, it is essential that operators fully understand all the operating instructions, safety stipulations, paragraphs marked "attention" and "warning". If in doubt contact **HYDR'AM**.



II – Operating instructions

Hydraulic spreaders & accessories: EHD860 S/EHD 880 S / EHD 550 S

3.1 To operate the spreaders follow the steps below:

1 Connect the pump to the spreader, Connect the hydraulic hoses using quick connect couplers.

IMPORTANT:To avoid accidental disconnection of the hoses, make sure the locking rings of the quick connect couplers are fully tightened.

- 2.Check spreader operation: after connecting the pump to the spreader, activate the pump following the procedures described in the pump instruction sheets.
- 3.Turn deadman's handle into spread position. The spreader arms will open. If the deadman's handle is released, it will automatically take the neutral (0) position. The spreader arms will stay in open position.
- 4.Turn deadman's handle to closed position. The spreader arms will close. If the deadman's handle is released, it will automatically take the neutral (0) position. The spreader arms will keep their actual position.
- 5. Check the connections and hydraulic parts of the spreader. There should be no oil leakage

4.0 Maintenance and service

Regularly inspect all components to detect any problem requiring service or maintenance. Replace worn or damaged parts and accessories. Clean the spreader after use.

Clean and lubricate the rotation points and moving parts with special grease ALTEMP QB 50.

HYDR'AM has ready to use spare parts kits available for repair and replacement. Repair parts instruction sheets with exploded views and spare parts breakdown are available.

4.1 Disconnecting the deadman's handle

If a service is required, follow the steps below to separate the deadman's handle from the spreader:

4.1.1. loosen the hexagon screw (ref C36) from the side of the deadman's handle and push aside the polyurethane handle (ref 6) on the hoses. Be careful don't lose the 3 balls (ref C17 and ref C25).

- 4.1.2. Unscrew the hoses from the back of the from the end of the deadman's handle.
- 4.1.3. Remove the polyurethane handle .(rep 6)
- 4.1.4 Pull out the annular spring (ref 13)
- 4.1.5. Loosen the 6 hexagon cap screws (ref C12) to remove the complete deadman's handle

IMPORTANT: When mounting the deadman's handle onto the spreader, make sure the new seals are correctly mounted (ref. C5). Re-tighten the 6 screws (ref.C12).

Position the springs (ref 13) as shown in the illustration below. IMPORTANT. The end of the spring, which is below, should be slightly raised (see Ref. A) then push the spring against the body of the handle(see illustration below) and centre the valve (ref 2) to provide passage for the pin (ref C22) when mounting the polyurethane handle (ref 6).

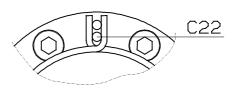
Put the polyurethane on the hoses.

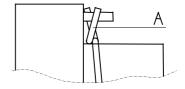
Retighten the 2 hoses (ref C32).

Glue the two balls (ref C25) on the valve (ref 2) with some grease. Put back the polyurethane handle on the body of the dead man handle.

Tighten the hexagonal screw (C36) back

To avoid oil leakage, mount the black hose in the deadman's handle onto the advance port (P) and the red hose in the deadman's handle onto the retract port (R). Black hose (Advance) maximum pressure is 700 bar, red hose or blue hose (retract) maximum pressure 200 bar. P and R are stamped on the backside of the deadman's handle.







II – Operating instructions

Hydraulic separators & accessories EHD860 S/EHD 880 S / EHD 550 S

5. Maintenance

After each service, check the condition of the barbed tips. Clean the connectors and protection caps.

6. Trouble shooting

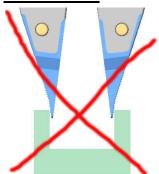
PROBLEM	SOLUTION
Quick connect couplers cannot be connected.	A. Loosen locking rings on the quick connect couplers. B. Hose is pressurized. Switch handle on manual valve on the pump several times to release pressure. If it is disconnected use a decompression device (DF 115 <i>HYDR'AM</i>)
2. Spreader does not react when activating the deadman's handle	A. Check if the quick connect couplers are correctly connected. B. Check the pump – Pump must be running – Manual valve must be in "open" position – Oil level in tank is too low. Top up the level
3. Deadman's handle leaks oil on the backside.	A. Check position of hoses on the spreader §4.1. B. Check if couplers are correctly tightened Make sure that the P-port on the pump is connected to the P-port on the spreader If not change position of the 2 hoses on the spreader. See §4.1 et figure 1 for the correct position of the quick connect couplers. E. If oil is still leaking, replace the deadman's handle (see §4.1).

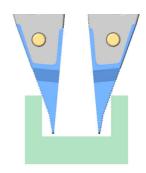


II – Operating instructions

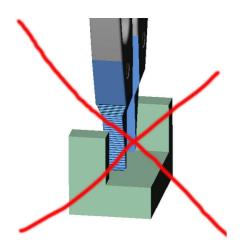
Hydraulic spreaders & accessories: EHD 860 S / EHD 880 S / EHD 550 S

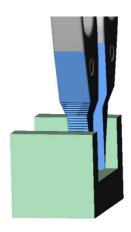
7 Illustrations



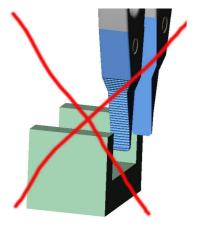


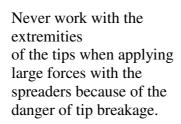
Never work with the tips in an unstable position, as the arms could distort causing tip breakage.





The bearing surface of the tips must be in equilibrium.
Always work with the whole surface of the tips.





NOTA:

Tips are regrindable several times do not throw them. When tips no longer adhere it is possible to regrind them on site or in HYDR'AM.



WARRANTY

HYDR'AM industrial equipment is guaranteed for one year as of the purchase date under normal use conditions

The warranty applies to all parts acknowledged as defective by our Technical Services. The warranty does not apply to cost of parts and labour involved in the normal maintenance of the equipment. It does not cover any damage due to negligence or incorrect use.

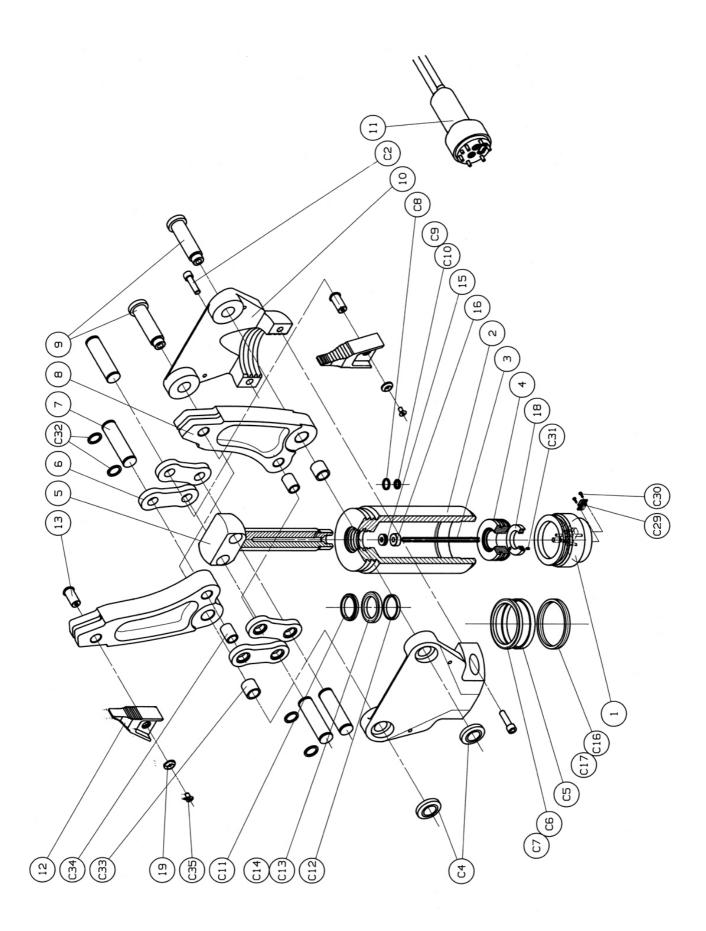
The operating warranty excludes any deterioration resulting from normal wear or aging of the product.

The warranty is not applicable if the equipment sold has not been used and operated under the conditions as stipulated in this manual. Furthermore, the warranty will no longer valid if any attempts have been made to disassemble our equipment. All maintenance and parts replacement must be exclusively carried out by the After Sales Service of *HYDR'AM*.

The warranty concerns the repair or replacement of components or equipment at *HYDR'AM's discretion*, *in its workshops*. Transport and packaging costs are for the account of the purchaser.

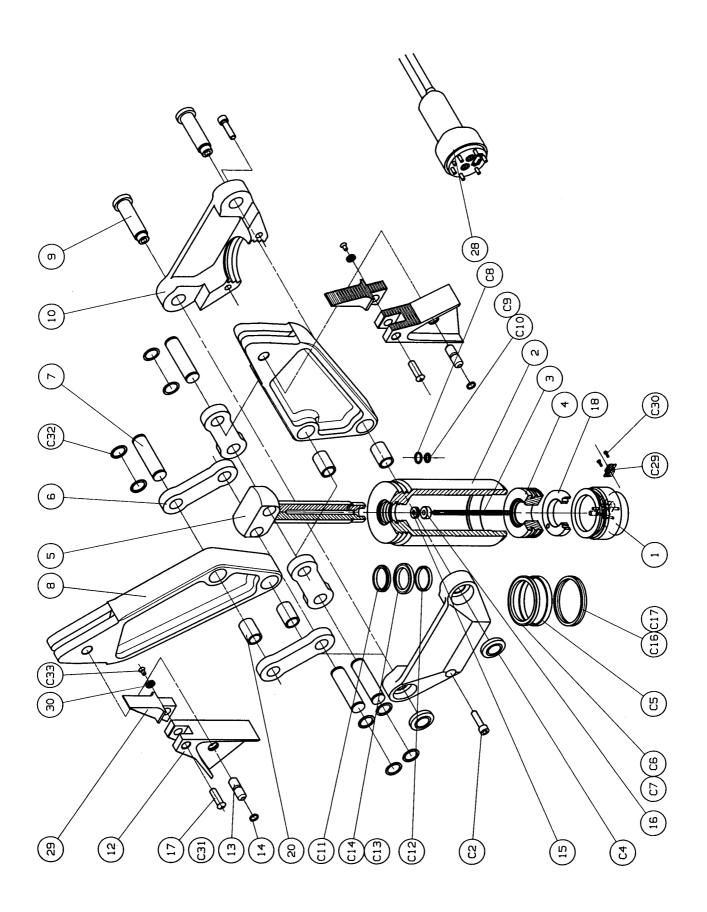
The defective parts exchanged become the property of *HYDR'AM*. The repair, modification or replacement of parts during the warranty period cannot lead to an extension of the warranty period.

Responsibility following the sale of our equipment is expressly limited to this warranty. It excludes the possibility of having recourse to penalties or damages.



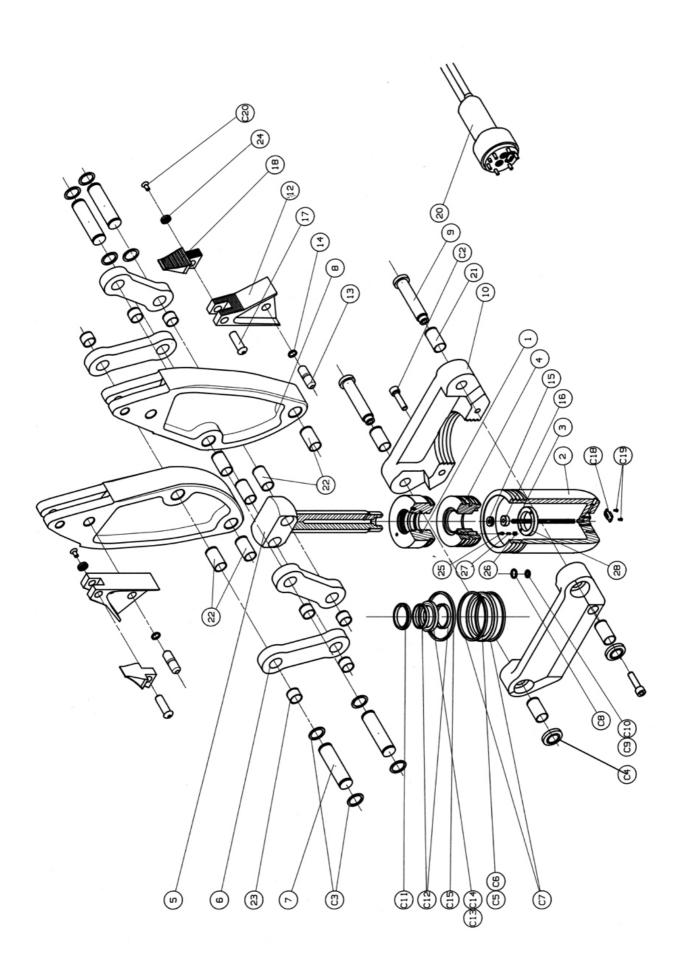
EHD 860 S

KEY N°	IDENTI	FICATION		
	PART	DESCRIPTION	DESIGNATION	QTY
	NUMBER	2250111111011	2201011111011	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
01	EHD860 001		END CAP	1
02	EHM860 102		CYLINDER BODY	1
03	EHM860 003		PLUNGER	1
04	EHD860 003		PISTON	1
05	EHD860 004		PISTON ROD	1
06	EHD860 005		LEVER	4
07	EHD860 000 EHD860 007		YOKE PIN	4
08	EHD860 007 EHD860 008		SPREADER ARM	2
09	EHM860 009		SPREADER PIN	2
10	EHD860 009		1/2 YOKE	2
11	PCS		DEAD MAN HANDLE WITH SECURITY	1
12	EHD860 012		SPREADER TIP	
13	EHM860 012		DOWEL PIN	2 2
14	Elliviou 013		DOWELTIN	2
15	CHE2100 013		SEAL BUSHING	1
16	CHE2100 013 CHE2100 014		LOCK NUT	1
17	C11L2100 014		LOCK NOT	1 1
18	EHD860 018		PISTON NUT	1
10	EHD860 019		DOWEL PIN NUT	2
C01	LIID000 017		DOWELT IN NOT	2
C02	EHD860 C02		SCREW	2
C03	LIID000 C02		JEREW	
C04	EHD860 C04		NUT	2
C05	EHD860 C05		PISTON SEAL	1
C06	EHD860 C06		GLYD-RING	1
C07	EHD860 C07		O-RING	1
C08	EHD860 C08		O-RING	1
C09	EHD860 C09		O-RING	1
C10	EHD860 C10		GLYD-RING	1
C11	EHD860 C11		WIPER	1
C12	EHD860 C12		PLUNGER SEAL	1
C13	EHD860 C13		STEP-SEAL	1
C14	EHD860 C14		O-RING	1
C15				
C16	EHD860 C16		O-RING	1
C17	EHD860 C17		ANTI-EXTRUSION	1
C18				
C19				
C20				
C21				
C22				
C23				1
C24				
C25				1
C26				1
C27				
C28	EHDOGO COO		MALE CONNECTOR	1 .
C29	EHD860 C29		MALE CONNECTOR	1
C30	EHD860 C30		SCREW	2
C31	EHD860 C31		SCREW	1
C32	EHD860 C32		CIRCLIPS	8
C33 C34	EHD860 C33 EHD860 C34		RING RING	2 2
C34	EHD860 C34 EHD860 C35		VIS	$\frac{2}{2}$
	E11D000 C33		V10	
				1



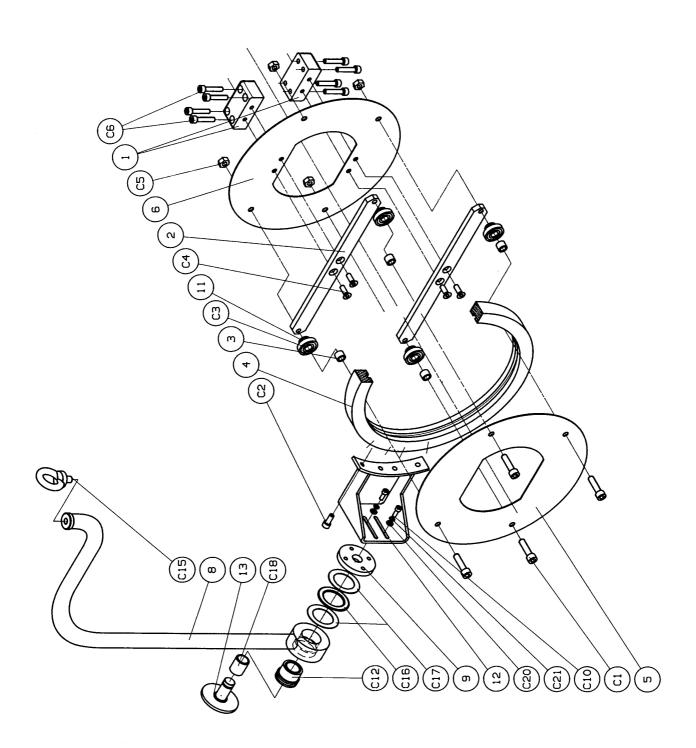
EHD 880 S

KEY N°	IDENTIFICATION			
Ţ	PART DESCRIPTION		DESIGNATION	QTY
	NUMBER			
01	EHD860 001		END CAP	1
02	EHL880 002		CYLINDER BODY	1
03	EHL880 003		PLUNGER	1
04	EHD860 004		PISTON	1
05	EHD880 005		PISTON ROD	1
06	EHD880 006		LEVER	4
07	EHL880 007		LEVER PIN	4
08	EHD880 008		SPREADER ARM	2
09	EHL880 009		SPREADER PIN	2
10	EHD880 010		1/2 YOKE	2
11				
12	EHD880 012		SPREADER TIP	2
13	EHL880 013		DOWEL PIN	2
14	EHL880 014		RING	2
15	CHE2100 013		SEAL BUSHING	1
16	CHE2100 014		LOCK NUT	1
17	EHD880 017		TIP PIN	2
18	EHD880 018		PISTON NUT	1
19 20	EHD880 020		MODIFIED SLEEVE	4
28	PCS		CONTROL HANDLE WITH SECURITY	1
29	EHD880 029		WELD DESTRUCTOR TIP	2
30	EHD860 018		PISTON NUT	1
C01				
C02	EHD880 C02		SCREW	2
C03				
C04	EHD880 C04		NUT	2
C05	EHD880 C05		PISTON SEAL	1
C06	EHD880 C06		GLYD-RING	1
C07	EHD880 C07		O-RING	1
C08 C09	EHD880 C08		O-RING O-RING	1
C10	EHD880 C09 EHD880 C10		GLYD-RING	1
C10 C11	EHD880 C10		WIPER	1 1
C12	EHD880 C12		PLUNGER SEAL	1
C12	EHD880 C13		STEP-SEAL	1
C14	EHD880 C14		O-RING	1
C15	212 000 01.			1
C16	EHD880 C16		O-RING	1
C17	EHD880 C17		ANTI-EXTRUSION	1
C18				
C19				
C22				
C23				
C24				
C25				
C26				
C27	EUD 000 220		o ppyg	
C28	EHD880 C28		O-RING	2
C29	EHD880 C29		CONNECTOR	$\frac{1}{2}$
C30	EHD880 C30		SCREW	2
C31	EHD880 C31		O-RING	2
C32 C33	EHD880 C32		CIRCLIPS SCREW	8 2
C33 C34	EHD880 C33		SCKE W	2
C34				



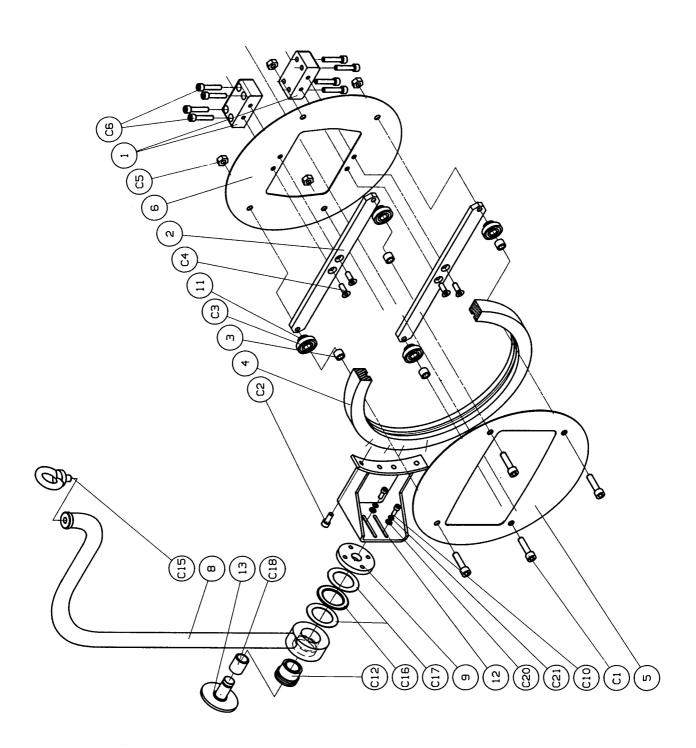
EHD 550 S

KEY N°	IDENTI	FICATION		
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01	EHSL550 001		END CAP	1
02	EHD550 002		CYLINDER BODY	1
03	EHSL550 002		PLUNGER	1
04	EHSL550 003		PISTON	1
05	EHSL550 005		PISTON ROD	1
06	EHSL550 006		LEVER	4
07	EHD550 007		LEVER PIN	4
08	EHSL550 008		SPREADER ARM	2
09	EHSL550 009		SPREADER PIN	2
10	EHD550 010		1/2 YOKE	2
11				
12	EHD880 012		SPREADER TIP	2
13	EHL880 013		DOWEL PIN	2
14	EHL880 014		RING	2
15	CHE2100 013		SEAL BUSHING	1
16	CHE2100 014		LOCK NUT	1
17	EHD880 017		TIP PIN	2
18	EHD550 018		WELD DESTRUCTOR TIP	2
19				
20	PCS		CONTROL HANDLE WITH SECURITY	1
21	EHD550 021		YOKE SLEEVE	4
22	EHD550 022		ARM AND ROD SLEEVE	6
23	EHD550 023		LEVER SLEEVE	8
24	AEH 007		WASHER	2
25	PHS 020		SECURITY CONTACT	1
26	PHS 021		SCREW Hc M10	1
27	PCH 012		SPRING	1
28	EHD550S		PISTON NUT	1
C01				
C02	EHD550 C02		SCREW	2
C03	EHD550 C03		CIRCLIP	4
C04	EHD550 C04		NUT	2
C05	EHD550 C05		GLYD RING	1
C06	EHD550 C06		O-RING	1
C07	EHD550 C07		PISTON SEAL	2
C08	EHD550 C08		O-RING	1
C09	EHD550 C09		O-RING	1
C10	EHD550 C10		GLYD-RING	1
C11	EHD550 C10		WIPER	1
C12	EHD550 C12		PLUNGER SEAL	2
C12	EHD550 C12		O-RING	1
C14	EHD550 C14		STEP SEAL	1
C15	EHD550 C15		O-RING	1
C16	EHD550 C16		O-RING	2
C10	L11D330 C10		5 IM10	
C17	EHD550 C18		MALE CONNECTOR	1
C18	EHD550 C18 EHD550 C19		SCREW	2
C19 C20	EHD550 C19 EHD550 C20		SCREW	$\frac{2}{2}$
C20 C21	E11D330 C20		SCILL W	
C21				
		l .		



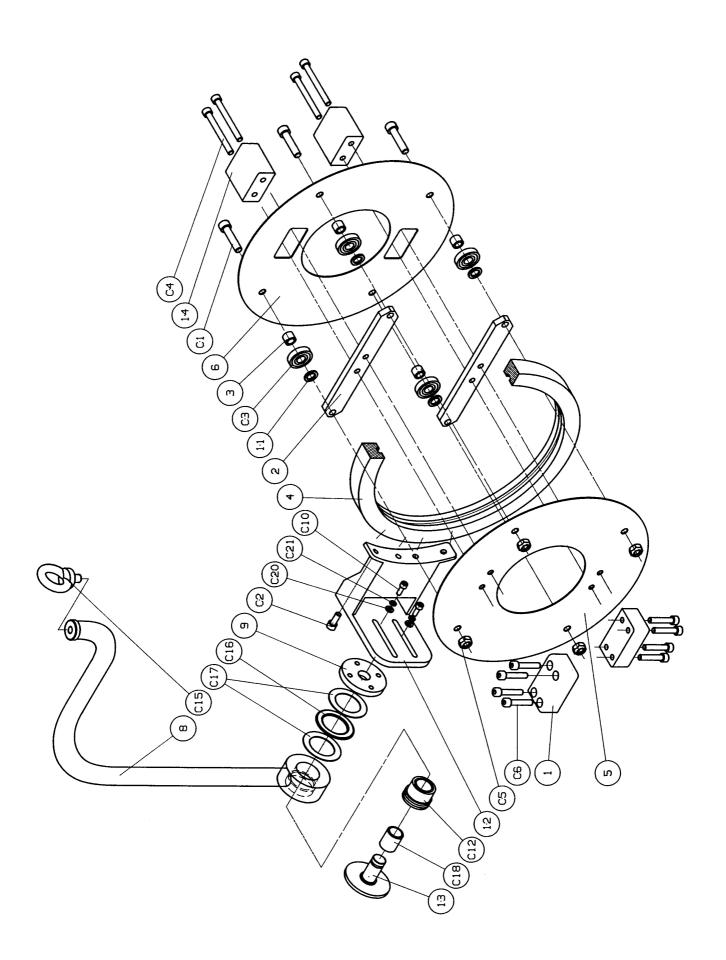
SGC860

KEY N°	IDENT	IFICATION		
	PART NUMBER	DESCRIPTION	DESIGNATION	QTY
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15	SG860 001 SG860 002 SG860 003 SGC860 004 SG860 005		FIXING BLOCK ROLL CARRIER ARM BRACE ROTATING RING FRONT PROTECTION REAR PROTECTION SUSPENSION HANDLE FIXED HUB BEARING WASHER BRACKET COVER	2 2 4 1 1 1 2 4
17 18 C01 C02 C03 C04 C05 C06 C07	SGC860 C04 SGC860 C05 SGC860 C06		SCREW SCREW BEARING SCREW RECESSED NUT SCREW	4 6 4 4 4 8
C08 C09 C10 C11 C12 C13 C14	SGC860 C10 SGC860 C12		SCREW BEARING	4
C15 C16 C17 C18 C19 C20 C21	SGC860 C15 SGC860 C16 SGC860 C17 SGC860 C18		HOLDING RING NEEDLE THRUST THIN WASHER INTERIOR RING WIDE WASHER GROWER WASHER	1 1 2 1 4 4



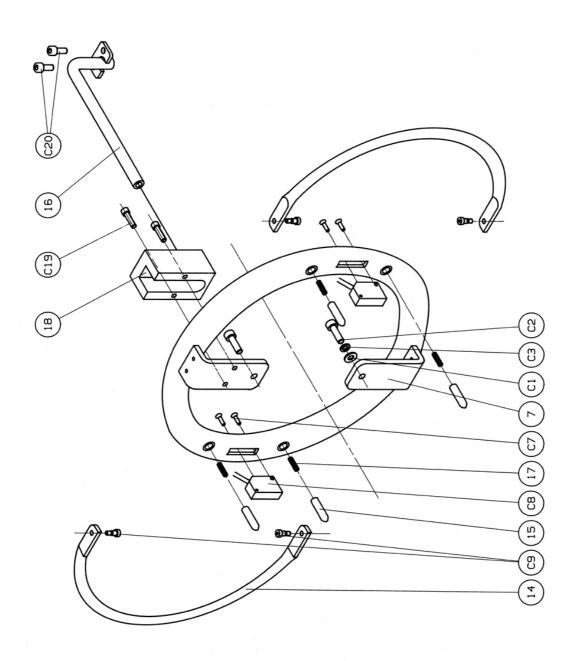
SGC880

KEY N°	IDENTI	FICATION		
	PART	DESCRIPTION	DESIGNATION	QTY
	NUMBER			
01 02 03 04 05 06 07	SG860 001 SG860 002 SG860 003 SGC860 004 SG880 005 SG880 006		FIXING BLOCK ROLL CARRIER ARM BRACE ROTATING RING FRONT PROTECTION REAR PROTECTION	2 2 4 1 1
08 09 10	SGC860 008 SGC860 009		SUSPENSION HANDLE FIXED HUB	1 2
11 12 13 14 15 16 17 18	SG860 011 SGC860 012 SGC860 013		BEARING WASHER BRACKET COVER	4
C01 C02 C03 C04 C05 C06 C07 C08	SGC880 C01 SGC880 C02 SGC880 C03 SGC880 C04 SGC880 C05 SGC880 C06		SCREW SCREW BEARING SCREW RECESSED NUT SCREW	4 6 4 4 4 8
C09 C10 C11	SGC880 C10		SCREW	4
C12 C13	SGC880 C12		BEARING	1
C14 C15 C16 C17 C18 C19	SGC880 C14 SGC880 C15 SGC880 C16 SGC880 C17 SGC880 C18		HOLDING RING NEEDLE THRUST THIN WASHER INTERIOR RING	1 1 2 1
C20 C21	SGC880 C20 SGC880 C21		WIDE WASHER GROWER WASHER	



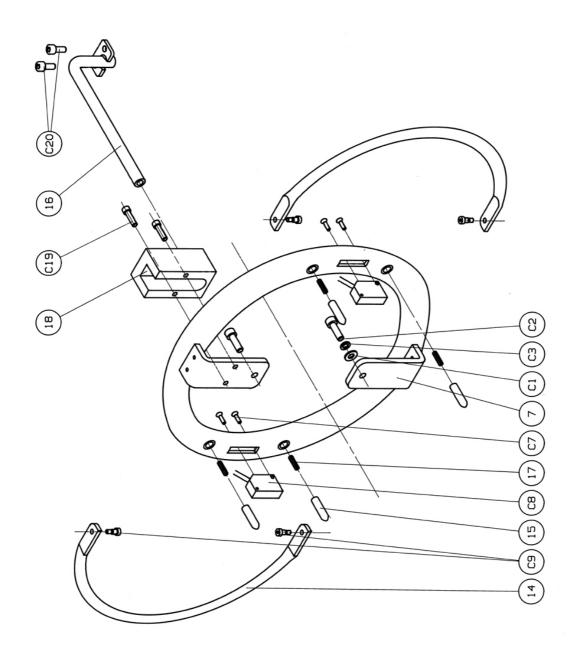
SGC550

KEY N°	IDENTI	FICATION		
	PART	DESCRIPTION	DESIGNATION	QTY
	NUMBER			
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10 11 12 13 14 15 16 17	SG860 011 SGC550 012 SGC860 013 SGC550 014		BEARING WASHER BRACKET COVER HANDLE SPACER	4 1 1 2
C01 C02 C03 C04 C05 C06 C07 C08	SGC550 001 SGC550 C02 SGC550 C03 SGC550 C04 SGC550 C05 SGC550 C06		SCREW SCREW BEARING SCREW RECESSED NUT SCREW	4 6 4 4 4 8
C09 C10 C11 C12 C13	SGC550 C10 SGC550 C12		SCREW BEARING	4
C14 C15 C16 C17 C18 C19 C20	SGC550 C15 SGC550 C16 SGC550 C17 SGC550 C18		HOLDING RING NEEDLE THRUST THIN WASHER INTERIOR RING WIDE WASHER	1 1 2 1
C21	SGC550 C21		GROWER WASHER	4



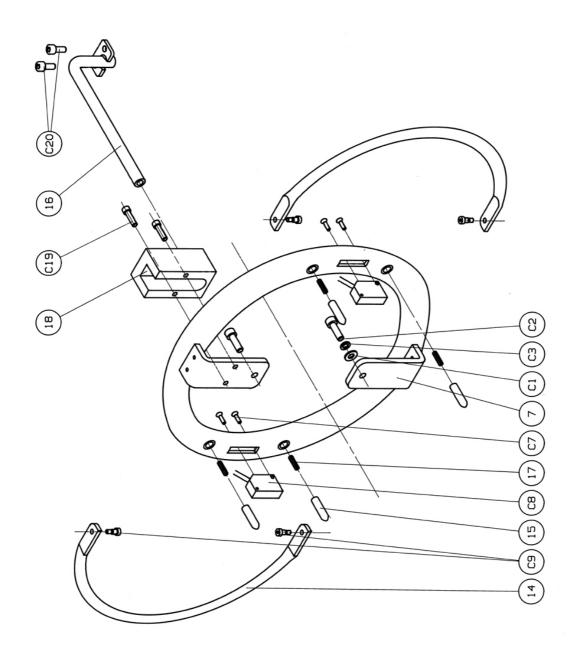
VMS860

KEY N°	IDENT	TIFICATION		
	PART	DESCRIPTION	DESIGNATION	QTY
	NUMBER			
01				
02				
03				
04 05				
06				
07	VMS860 007		SAFETY HOLDING HANDLE	1
08				
09 10				
11				
12				
13				_
14	VMS860 014		CONTROL LEVER	2
15 16	VMS 015 VMS860 016		STOP AND RECALL KEY GROMMET TUBE	4
17	VMS 017		SPRING	4
18	VMS860 018		GROMMET	1
C01	VMS860 C01		LARGE WASHER	1
C02 C03	VMS860 C02 VMS860 C03		SCREW GROWER WASHER	2
C04	V 1V15000 C03		GROWER WASHER	1
C05				
C06	VMS860 C07		CCDEW	4
C07 C08	VMS860 C07 VMS860 C08		SCREW CONTACTOR	4 2
C09	VMS860 C09		SHOULDERED SCREW	4
C10				
C11				
C12 C13				
C13				
C15				
C16				
C17 C18				
C19	VMS860 C19		SCREW	2
C20	VMS860 C20		SCREW	2 2



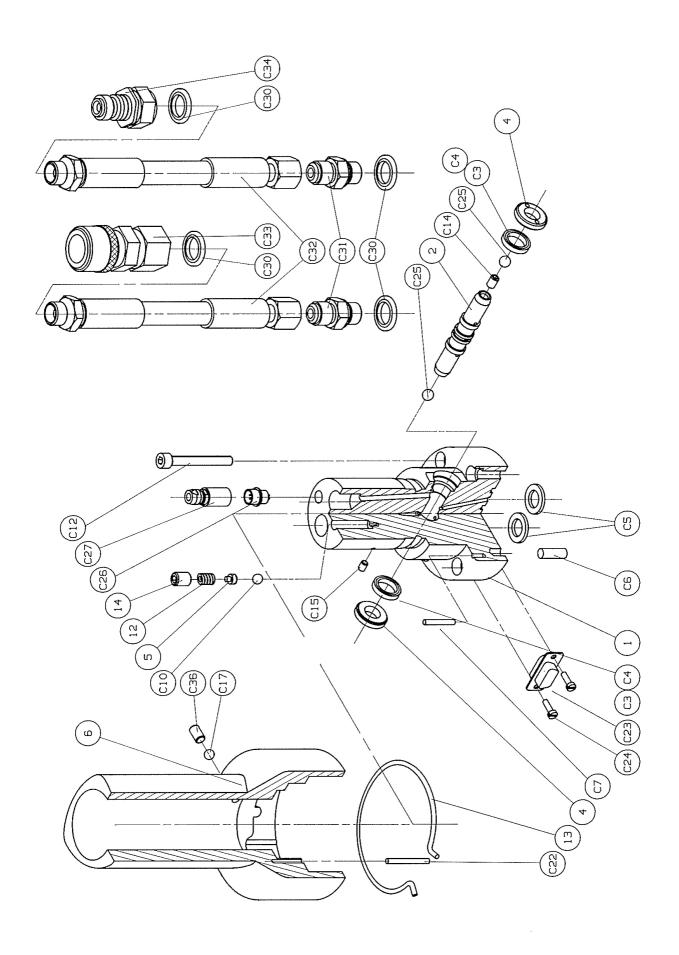
VMS880

KEY N°	IDENT	TIFICATION		
	PART	DESCRIPTION	DESIGNATION	QTY
	NUMBER			
01				
02				
03				
04 05				
06				
07			SAFETY HOLDING HANDLE	1
08				
09				
10 11				
12				
13				
14			CONTROL LEVER	2
15			STOP AND RECALL KEY	4
16 17			GROMMET TUBE SPRING	1
18			GROMMET	4
10	V 1V15000 010		GROWNE	
C01	VMS880 C01		LARGE WASHER	1
C02	VMS880 C02		SCREW	2
C03			GROWER WASHER	1
C04 C05				
C03				
C07			SCREW	4
C08			CONTACTOR	2
C09			SHOULDERED SCREW	4
C10 C11				
C12				
C13				
C14				
C15				
C16 C17				
C17				
C19	VMS880 C19		SCREW	2 2
C20	VMS880 C20		SCREW	2



VMS550

KEY	N°	IDENT	TIFICATION		
		PART	DESCRIPTION	DESIGNATION	QTY
		NUMBER			
	01				
	02 03				
	03				
	05				
	06 07	VMS550 007		SAFETY HOLDING HANDLE	1
	08	V 1VISSSO 007		SAFETT HOLDING HANDLE	1
	09				
	10 11				
	12				
	13	XD 40000 014		CONTROLLENED	
	14 15	VMS860 014 VMS 015		CONTROL LEVER STOP AND RECALL KEY	2 4
	16	VMS550 016		GROMMET TUBE	1
	17	VMS 017		SPRING	4
	18	VMS550 018		GROMMET	1
	C01	VMS550 C01		LARGE WASHER	1
	C02 C03	VMS550 C02 VMS550 C03		SCREW GROWER WASHER	2
	C04	, 1,12000			
	C05 C06				
	C07	VMS550 C07		SCREW	4
	C08	VMS550 C08		CONTACTOR	2
	C09 C10	VMS550 C09		SHOULDERED SCREW	4
	C11				
	C12				
	C13 C14				
	C15				
	C16 C17				
	C17				
	C19	VMS550 C19		SCREW	2 2
	C20	VMS550 C20		SCREW	2



PCHRS

KEY N°	IDEN'	TIFICATION		
	PART NUMBER	DESCRIPTION	DESIGNATION	QTY
01 02 03	PCHRS 001 PCH 002		HANDLE BODY DIRECTIONAL VALVE	1
04 05 06 07 08	PCH 004 PCH 005 PCH 006		SCREW M20X100 SPRING GUIDE POYURETHANE HANDLE	2 1 1
09 10 11 12 13 14	D1S 003 PCH 013 PCH 014		SAFETY SPRING RETURN SPRING SAFETY SCREW	1 1 1
C01 C02 C03 C04 C05 C06 C07	PCHRS C03 PCHRS C04 PCHRS C05 PCHRS C06 PCHRS C07		O RING STEAP SEAL O RING DOWEL PIN DOWEL PIN	2 2 4 1 1
C08 C09 C10 C11	PCHRS C10		BALL	1
C12 C13 C14 C15	PCHRS C12 PCHRS C14 PCHRS C15		SCREW SCREW SCREW	6 1 1
C16 C17 C18 C19	PCHRS C17		BALL	1
C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C34 C35	PCHRS C21 PCHRS C22 PCHRS C23 PCHRS C24 PCHRS C25 PCHRS C26 PCHRS C27 PCHRS C28 PCHRS C29 PCHRS C30 PCHRS C31 PCHRS C32 PCHRS C32 PCHRS C33 PCHRS C35 PCHRS C35 PCHRS C36	10 115 6247 10 115 1250	O RING DOWEL PIN FEMALE CONNECTOR SCREW BALL MALE SOCKET FEMALE CONNECTOR ELECTRIC WIRE MALE CONNECTOR RING BS ADAPTATER HYDRAULIC HOSE FEMALE COUPLER MALE COUPLER PLASTIC SHEATH SCREW	1 1 2 2 1 1 1 4 2 2 1 1 1 1 1







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