Miniwrap 100

2015

User's Guide

POMI Industri ApS

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Contents

Updated 06.05.2024

1. Pomi Miniwrap 100

Before using the Miniwrap 100, please take care to carefully read these instructions. The operator should have sufficient knowledge of the design and operation of the wrapper and know how to maintain it properly as this is essential to safe operation of the wrapper.

Thank you for choosing a POMI Miniwrap 100, you may use it for straw and silage.
If you want to use it for other crops, please contact the manufacturer to have his written approval.

2. Safety details

FOR YOUR OWN SAFETY

- **Never move about on or work on the machine unless the tractor engine has been stopped and the control box emergency stop button has been activated.**
- **Do not allow unauthorised persons within a distance of 10 metres from the machine when it is in operation. There are two reasons for this: partly the machine may suddenly move and partly oil may squirt from a damaged tube.**
- **All lamps must function as provided in your national road code.**
- **Drive sensibly when moving the machine as fierce driving strains both the wrapper and the baler. POMI disclaims any liability for damage to the baler.**
- **Remember to re-torque the wheels and wheel axle.**
- **Avoid hitting kerbstones and bumps at high speeds.**

3. EU Declaration of Conformity

Manufacturer: POMI Industri ApS
Abildvadvej 5, Thorup
DK-9610 Nørager

Tel. +45 98 55 20 00
Company

Declares THAT

Machine: Miniwrap 100 _____
Brand serial no., year

has been produced in conformity with the provisions of Council Directive 89/392/EEC of 14 June 1989 on the mutual approximation of the laws of the Member States relating to machinery as amended on 20 June 1991 (91/368/EEC) (93/44/EEC) and (93/68/EEC) with special reference to Annex I of the Directive relating to material safety and health requirements in connection with the design and manufacture of machinery.
Especially:
has/have been manufactured in conformity with the following harmonised standards (subart. 2 of Article 5 of the Directive)
has/have been manufactured in conformity with other standards and/technical provisions.

_____ _____
Signature Date:

Poul Mikkelsen
Managing Director
POMI Industri ApS

4. Identification of the machine

Please state the serial number of the machine when ordering spare parts. You will find the serial number on the type plate on the left side of the machine (see ill.).

Serial no._____

5. Lifting the wrapper

If you need to lift the wrapper using a crane, mount the straps as shown in the illustrations. In this position the machine is in a reasonable state of equilibrium.

6. Setting/adjusting the wrapper

6.1. Adjusting the front bed

1

When installing the wrapper on the baler, it is important to ensure as high a pressure on the baler as possible, preferably so the bales start to glide up as soon as they run off the baler. This ensures the smallest possible pitch on the belt and prevents the bales from stacking up.
Adjust the height of the front wrapper table at the two connecting rods (1) to bring the wrapper table to a horizontal position or to a slight forward tilt.

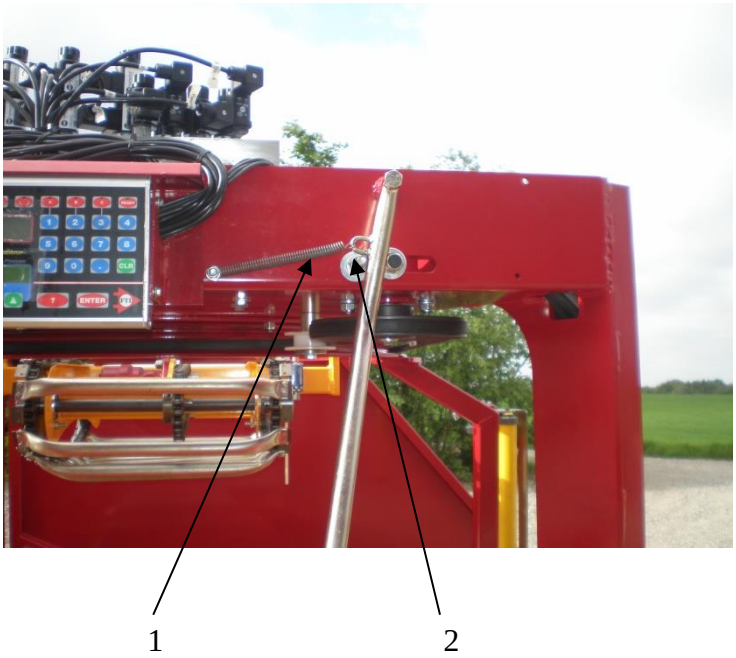
6.2. Shifting the drawbar

The drawbar can be set in 2 positions: Pos. 1 is working position. Pos. 2 is road haulage for centre mounted balers.

6.3. Adjusting the belt

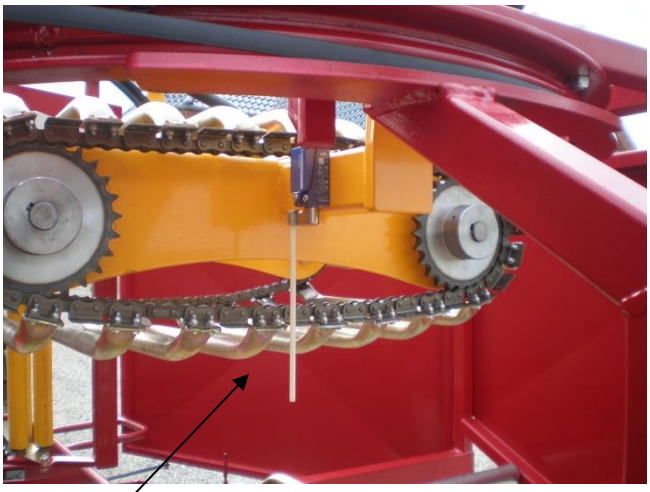
Adjust the belt sideways by slackening the bearings; next adjust the two screws so the belt runs across the middle of the rollers.

6.4. Bale stop on belt



The arm of the bale stop can be adjusted by the forward length: move the bolt (1). The sensor (2) can be moved forwards and backwards in the oblong hole to shift the location where the bale stops relative to the wrapper section.

6.5. Wrapper bale stop sensor

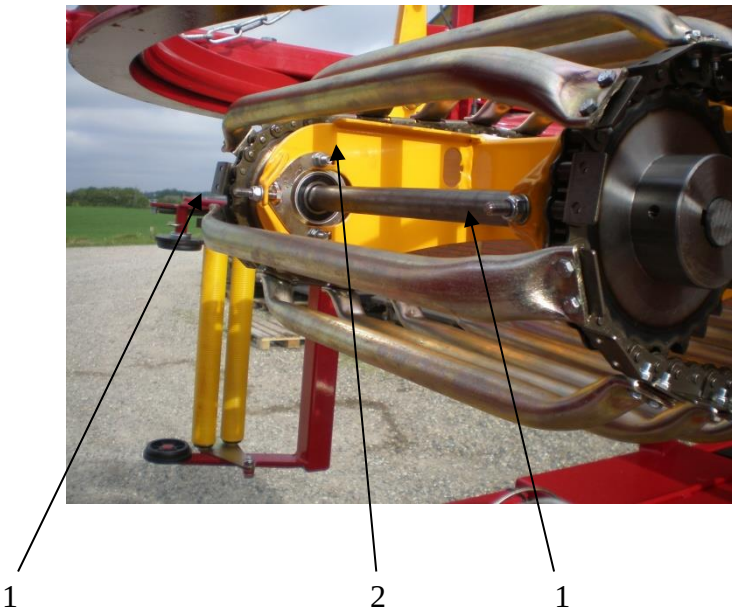


The sensor arm (1) can be moved stepwise by loosening the screw holding the white rod. Adjust and retighten.

6.6. Belt tensioner

Tension the belt by shifting the tensioning wheel (1)

6.7. Adjusting the baler table chains

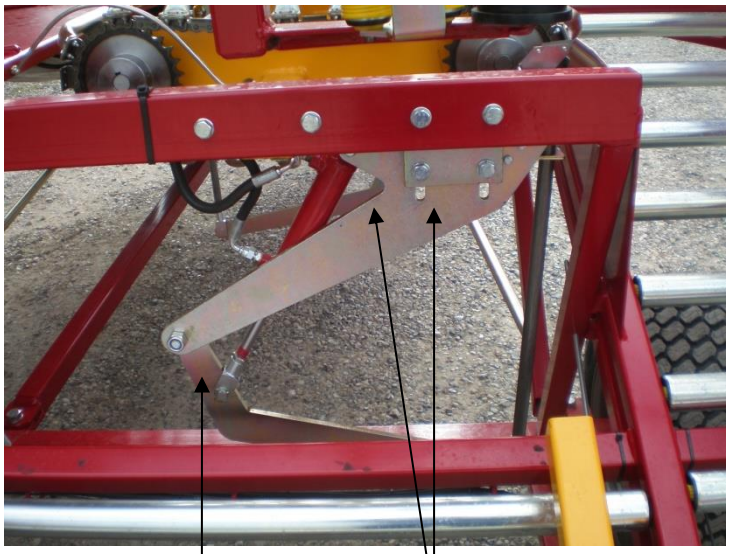


Adjust the chains by slackening the bearings at the tensioning end of the chains. Tension the chains using the screw (1). It is recommended to ensure as slack a tensioning as possible; however, the pushers must not touch the yellow plate (2).

6.8. Adjusting the pressure on the upper part

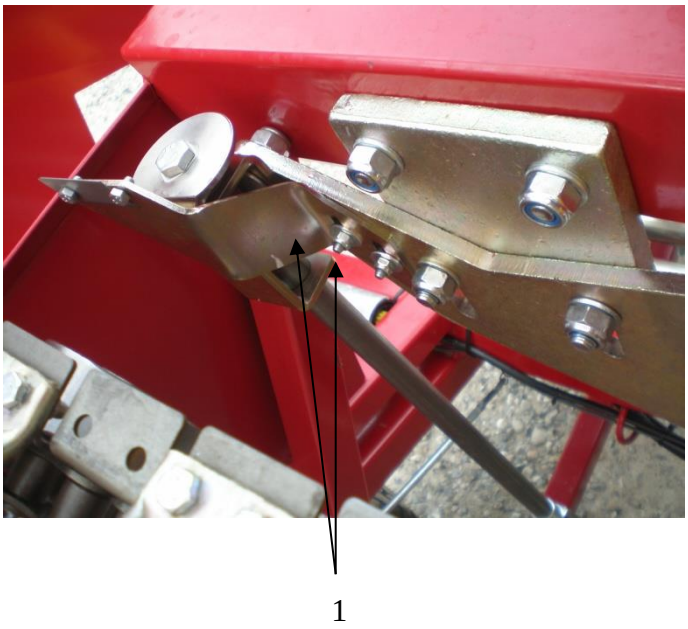
Tension the springs if the baler table cannot retain the bales.

6.9. Gripper adjustment



The gripper can be moved in the oblong holes (1). The travel of the gripper can be adjusted on the cylinder fork (2).

6.10. Knife adjustment



The knife can be adjusted in the oblong holes (1)

6.11. Adjusting the collector table bale sensor

Adjust the sensitivity of the bale sensor by shifting the plate (1).

6.12. Rear door adjustment

It is recommended to adjust the position of the rear door (see ill.). Adjust the position on the cylinder fork (2).

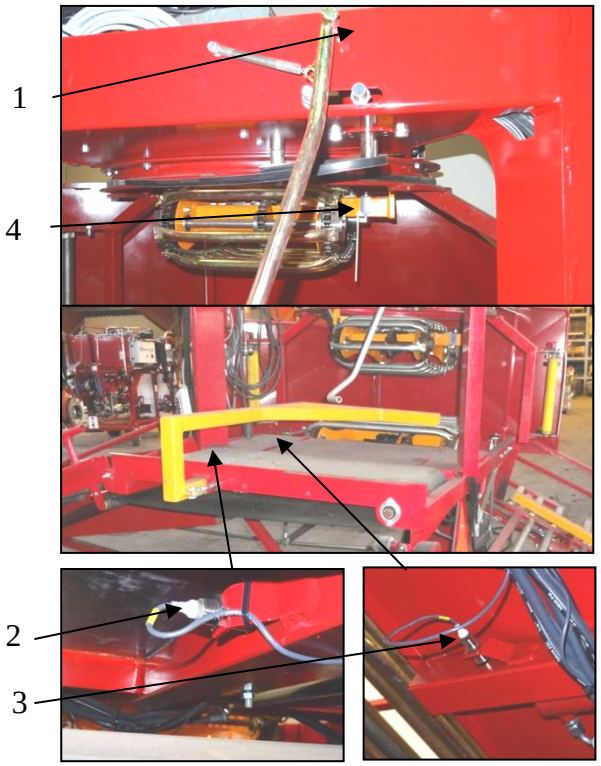
6.13. Sensor overview

Sensor 1 Ballstop on belt.
Stops belt when activated.

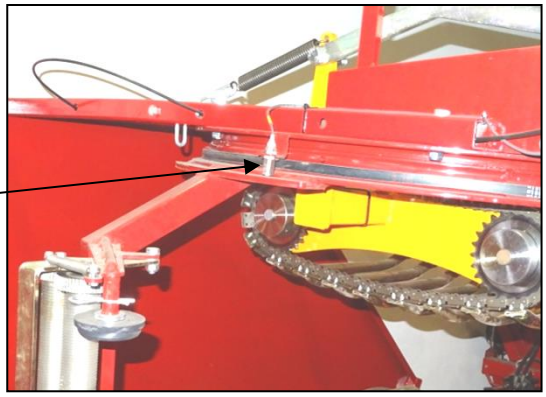
Sensor 2 Load arm out.
Turns off when the load arm is out, turns on and keeps light when the arm moves.

Sensor 3 Load arm in.
Turns on when load arm is in. Turns off when arm is on its way out.

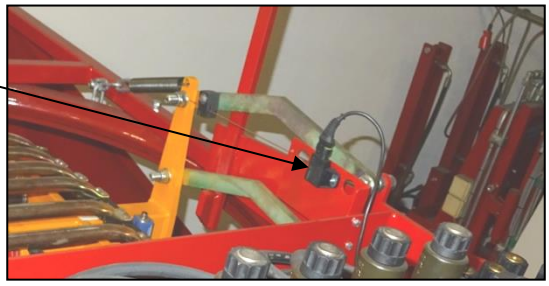
Sensor 4 Balestop in wrapper.
Activates when a bale comes in.
Stops loading so the bale is right located.



Sensor 5 Rotor switch.
Lights each time a foil arm passes.



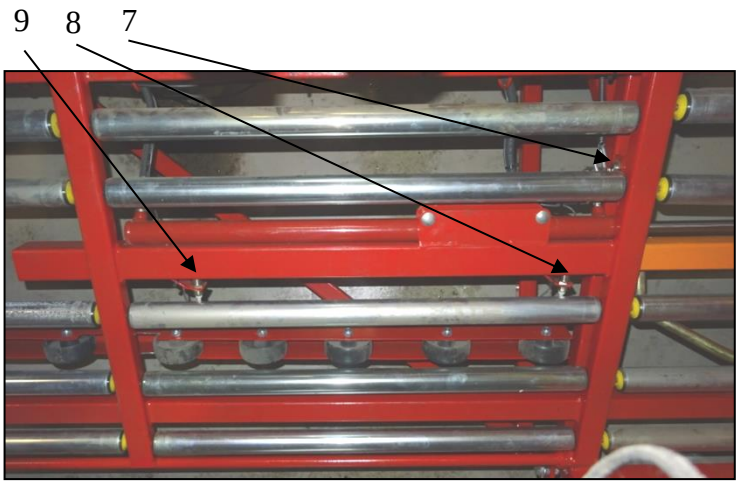
Sensor 6 Bale pos. max. error switch.
You can adjust the bale pos. max. error in the menu so the bale stops on the surface. If the value is too high the bale stands skewed. Is it too low, the bale continues to rotate.



Sensor 7 Switch roller path.
Turns off when a bale activates the arm.

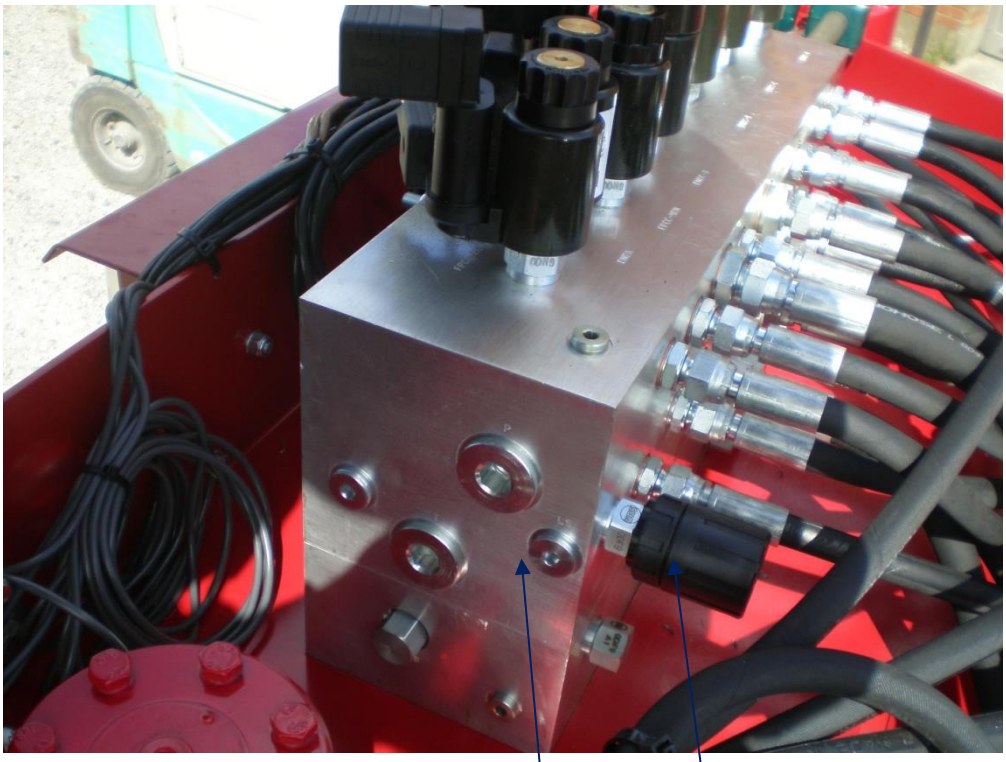
Sensor 8 Collecting table in.
Turns off when the push arm is in and keeps light for the rest of the time.

Sensor 9 Collecting table our.
Turns off when the arm is out and keeps light for the rest of the time.



7. Operating the wrapper

7.1. Connection of oil



Connect the oil so the flow is through the filter.

If LS is to be connected, connect the LS hose from the valve block at the LS (1) imprint over to the LS of the tractor, and turn the switch on the back of the block to LS. Make sure the switch (2) is on F when using a closed circuit and permanent pump. The hydraulics block is marked with F and LS.

7.2. Connection of electricity

There are numbers on wires.

Wire 1 is -

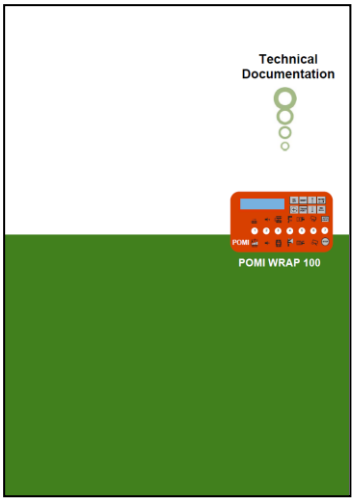
Wire 2 is +

7.3. Computer

Take care when setting the number of plastic layers to be wrapped around the bales. Check regularly. Check by counting the number of machine revolutions. If you know how many bales can be wrapped using one roll, you can also use this value to check.
We disclaim liability for faulty wrapping.

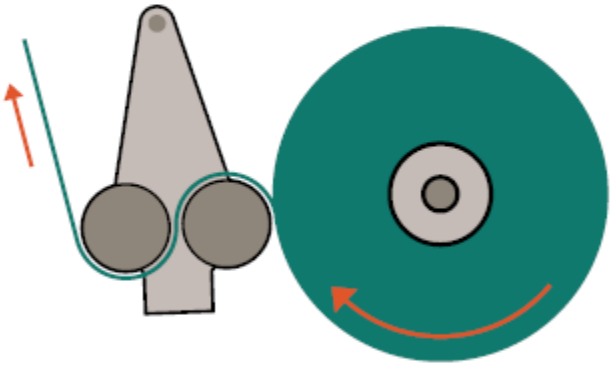
User guide for computer

See Technical Documentation - POMI WRAP 100.

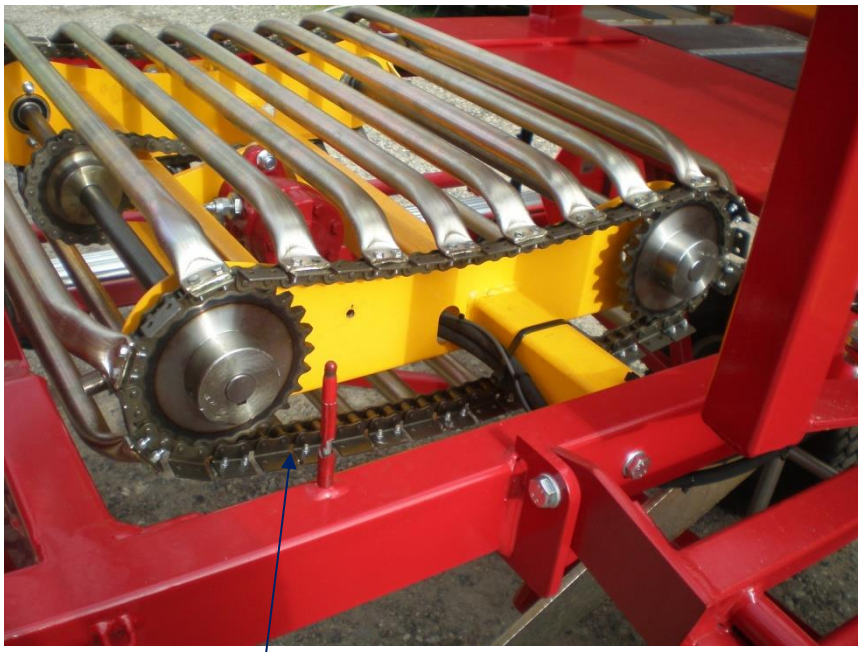


7.4. Installation of film rolls

Set the computer to service function.



Feed the film through the pre-stretchers as shown above.



Attach the end of the film to retainer (1).

Turn the rotor using button (1).

Install the second film roll and attach the end of the film to the same retainer.

8. Hydraulic drive

The hydraulic block features a number of flow control valves and pressure-relief valves.

There are flow control valves for the following functions:
See also the hydraulic chart A51358-51217.
Belt
Load arm
Gripper arm
Door
Pusher

Adjust the above flow control valves on the hydraulic block: Loosen a counter nut, next turn a socket screw in or out. If it is turned out, the speed is increased. Locate the specific flow control valve on the block by studying the diagram. Let us say you want to increase the speed of the gripper arm: See diagram A51358-51217. Locate the gripper arm by working your way through the diagram. Here you will find a valve termed FDBA-D. Locate the corresponding ID on the hydraulic block. Adjust this valve by screwing it half a turn – check whether this is sufficient.

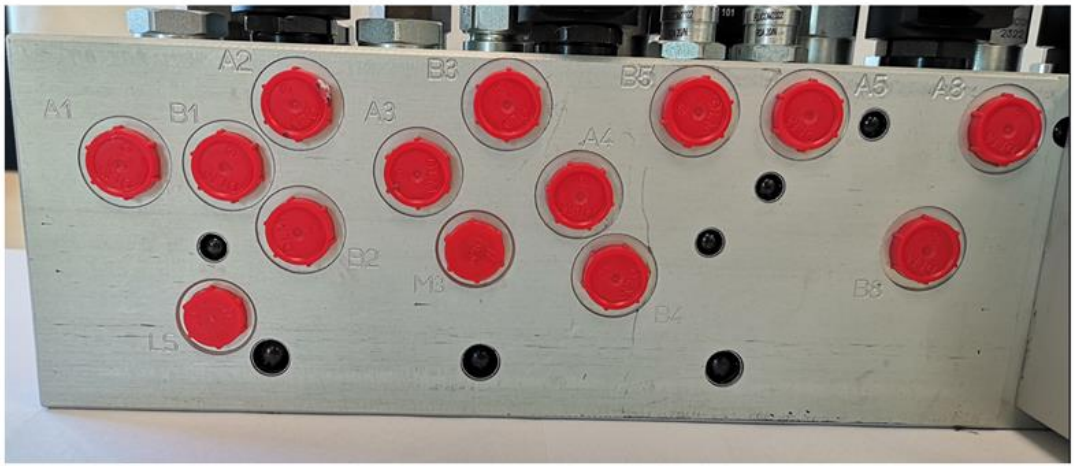
There is also a pressure-relief valve for the pusher arm and the load arm. The pressure can be increased or reduced, as required. If the pressure is increased excessively, this may damage the machine.

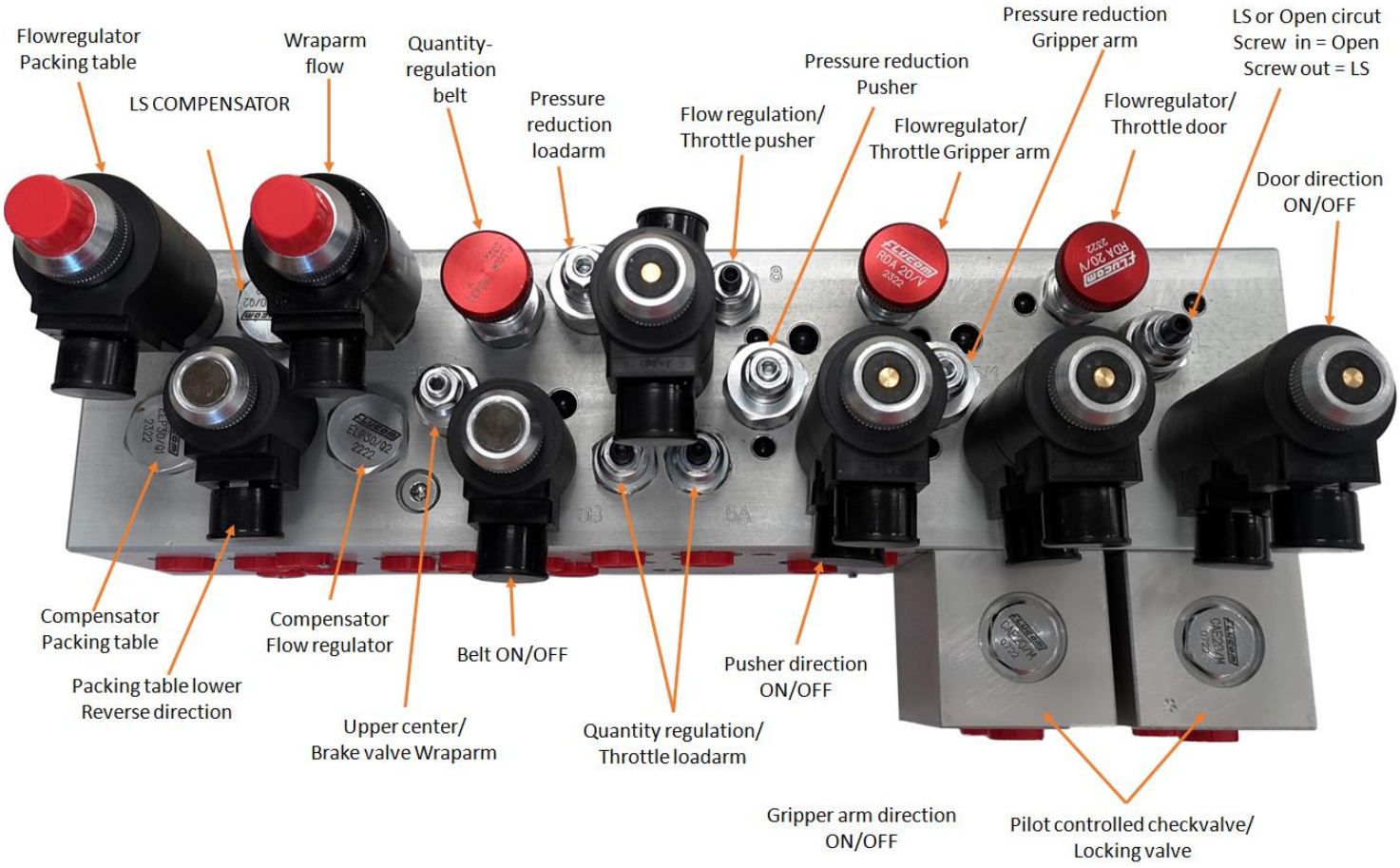
8.1. Hydraulic block from January 2023

A1 B1: Upper Packing table
A2 B2: Lower Packing table
A3 B3: Rotator
A4 B4: Belt
A5 B5: Load arm
A8 B8: Pusher

LS: Plug
M3: Plug

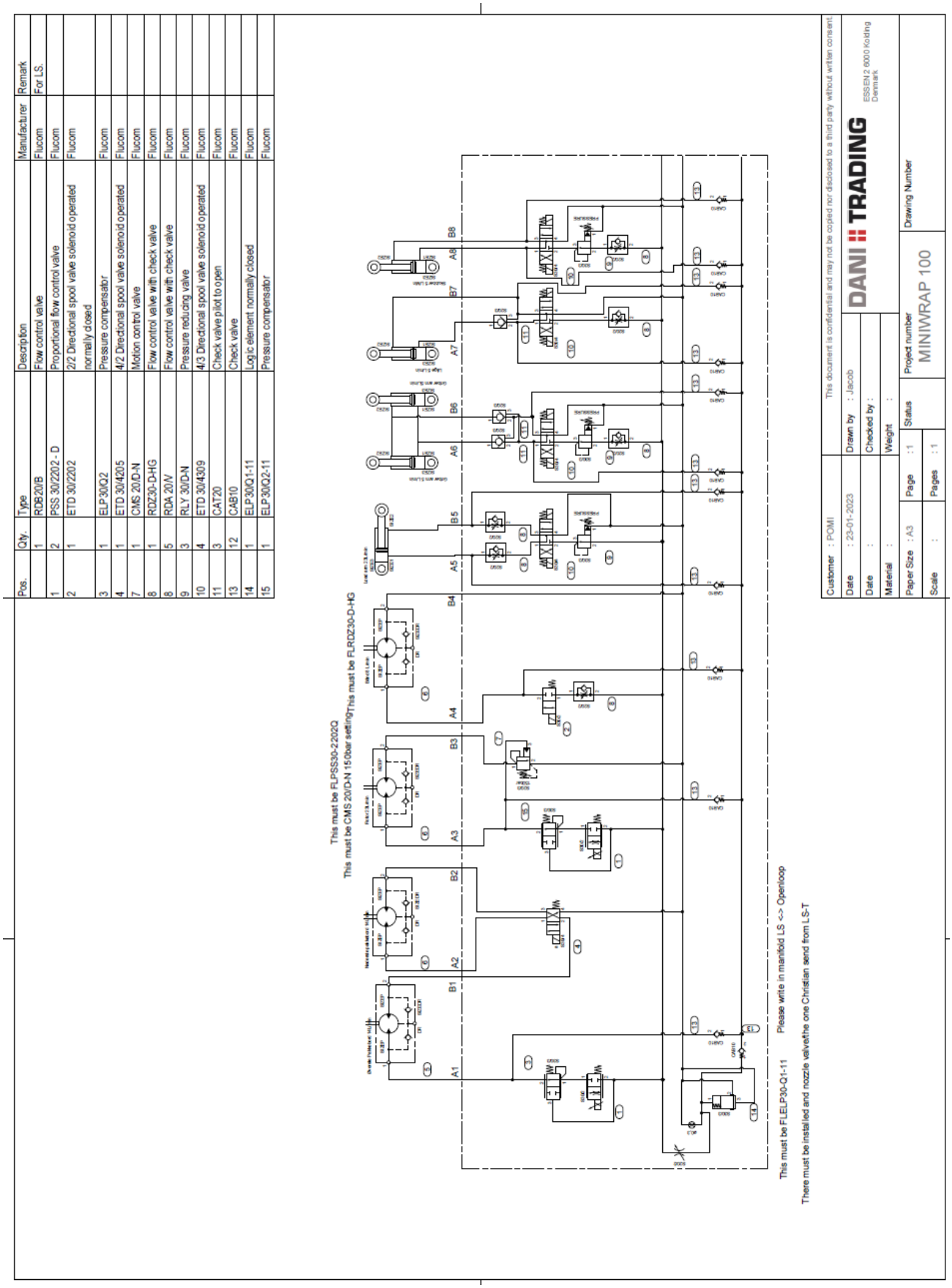
A6 B6: Gripper A7 B7: Locks



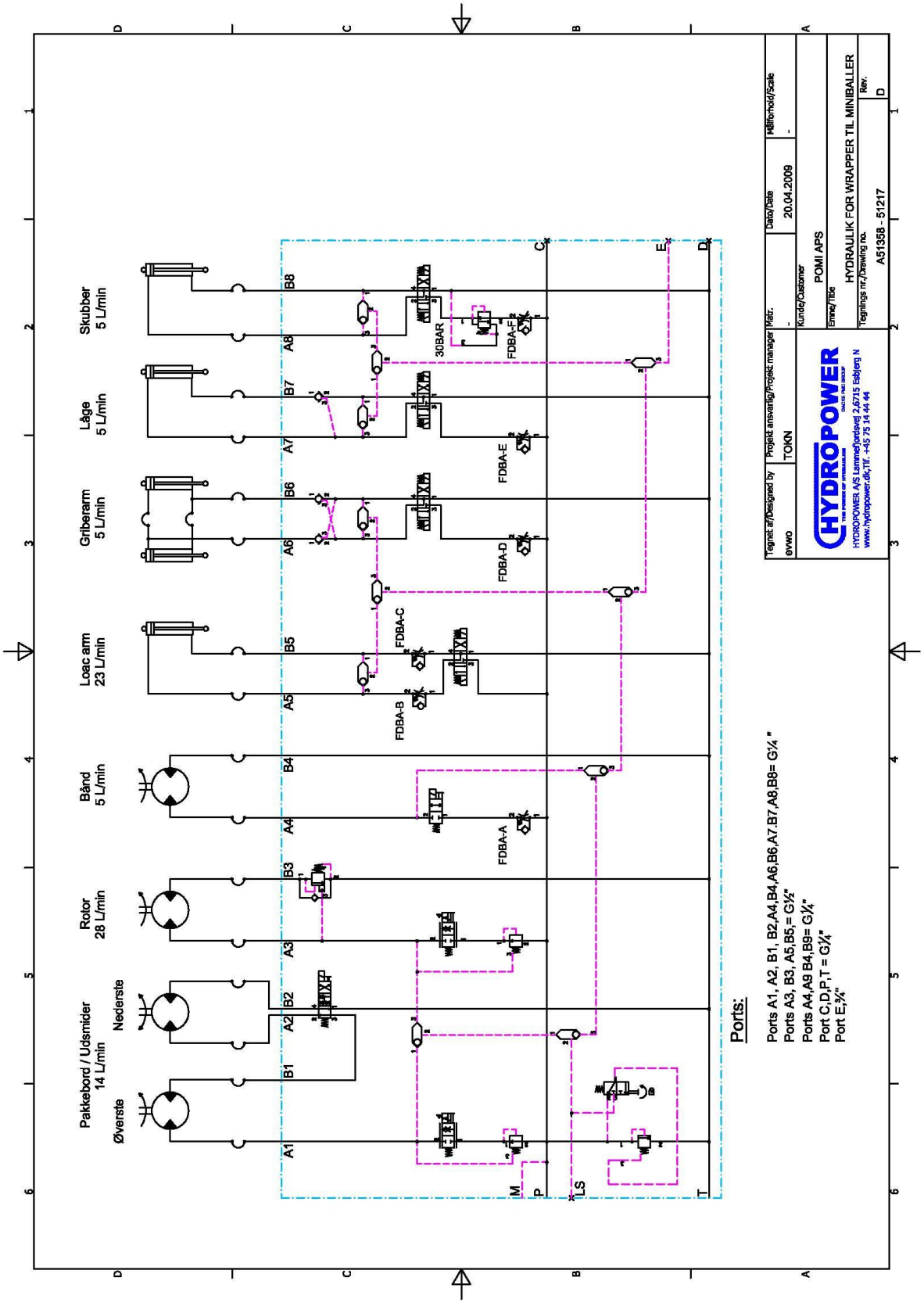


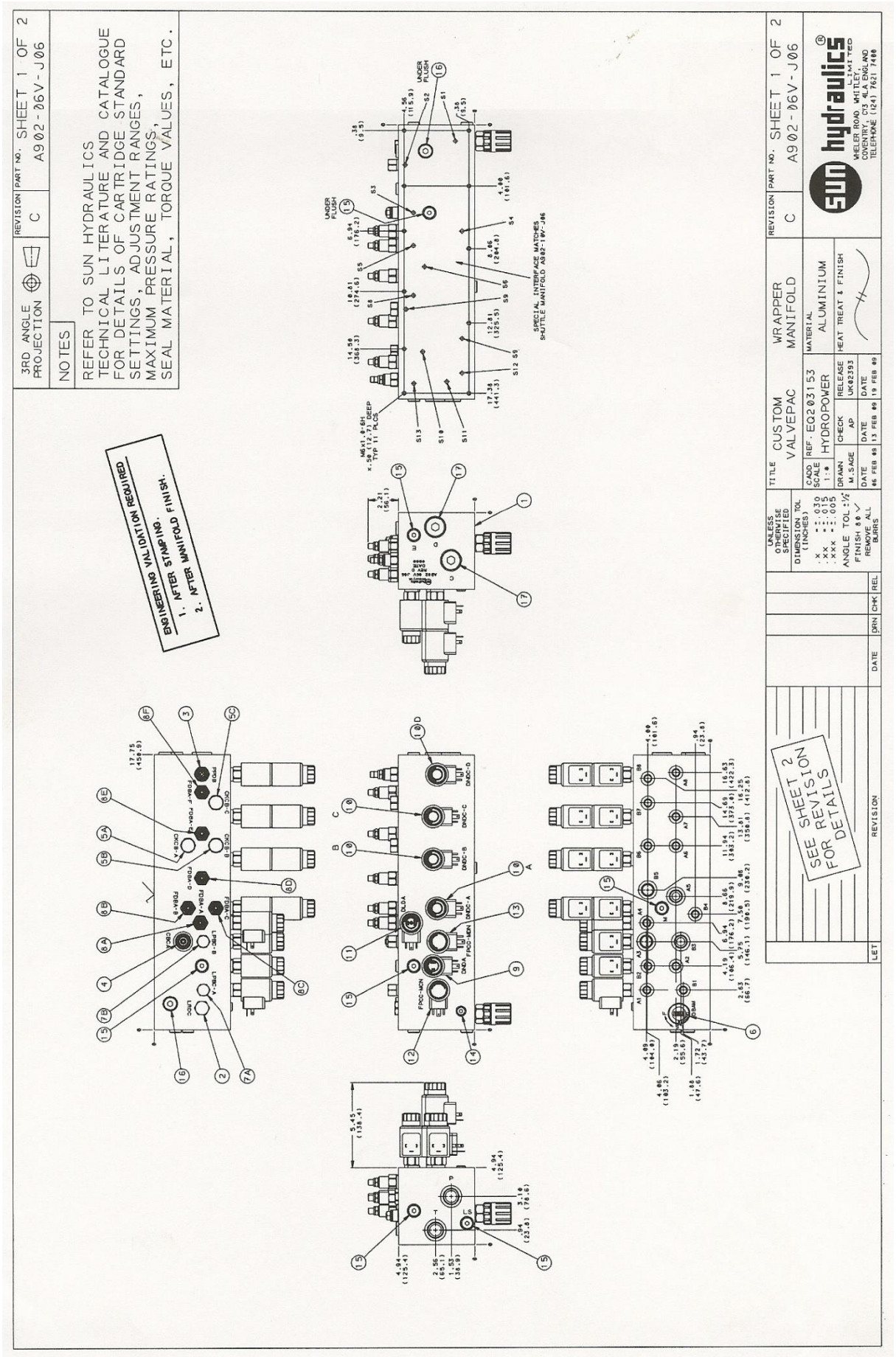
8.1. Hydraulic diagrams

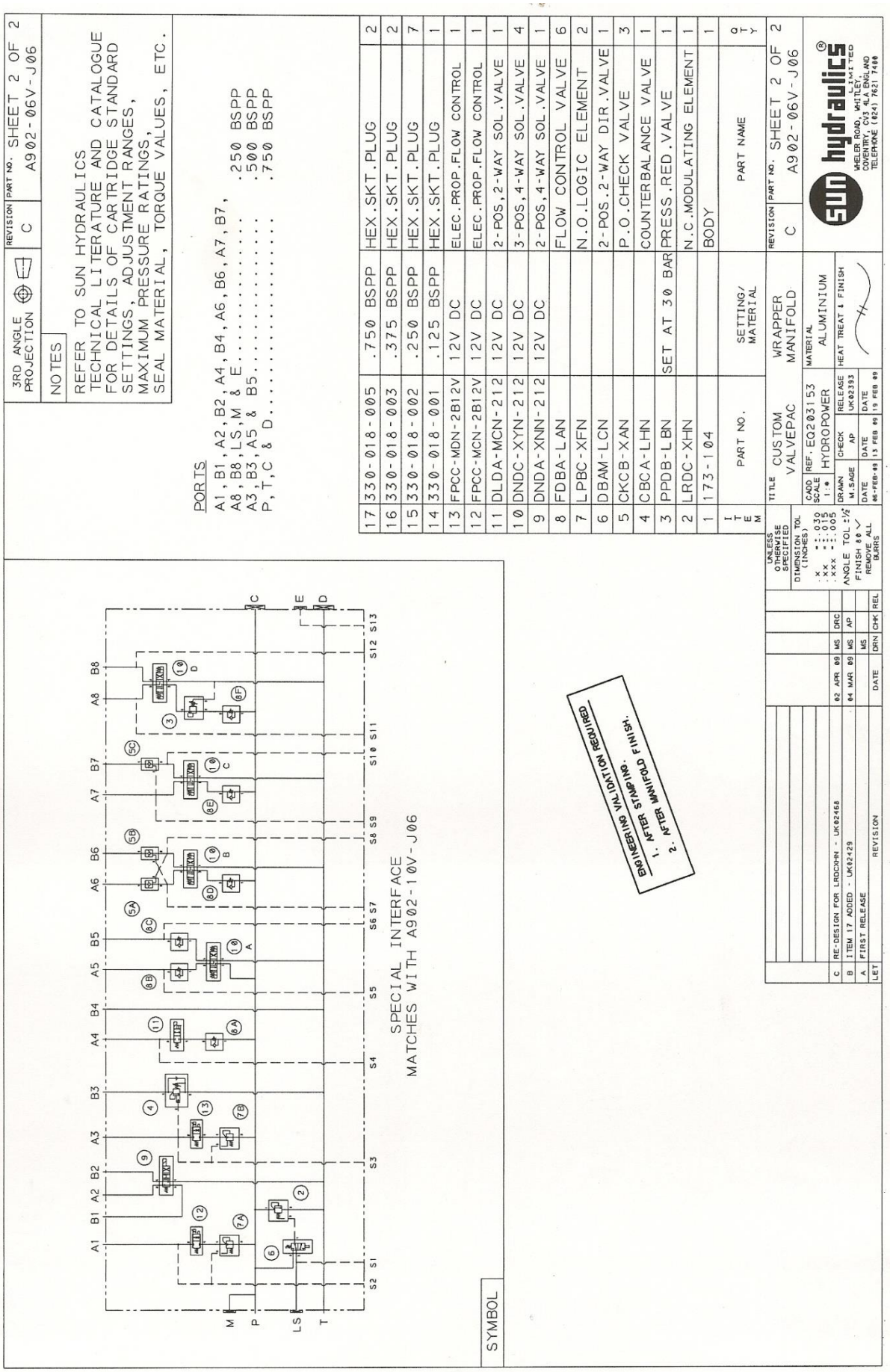
From January 2023

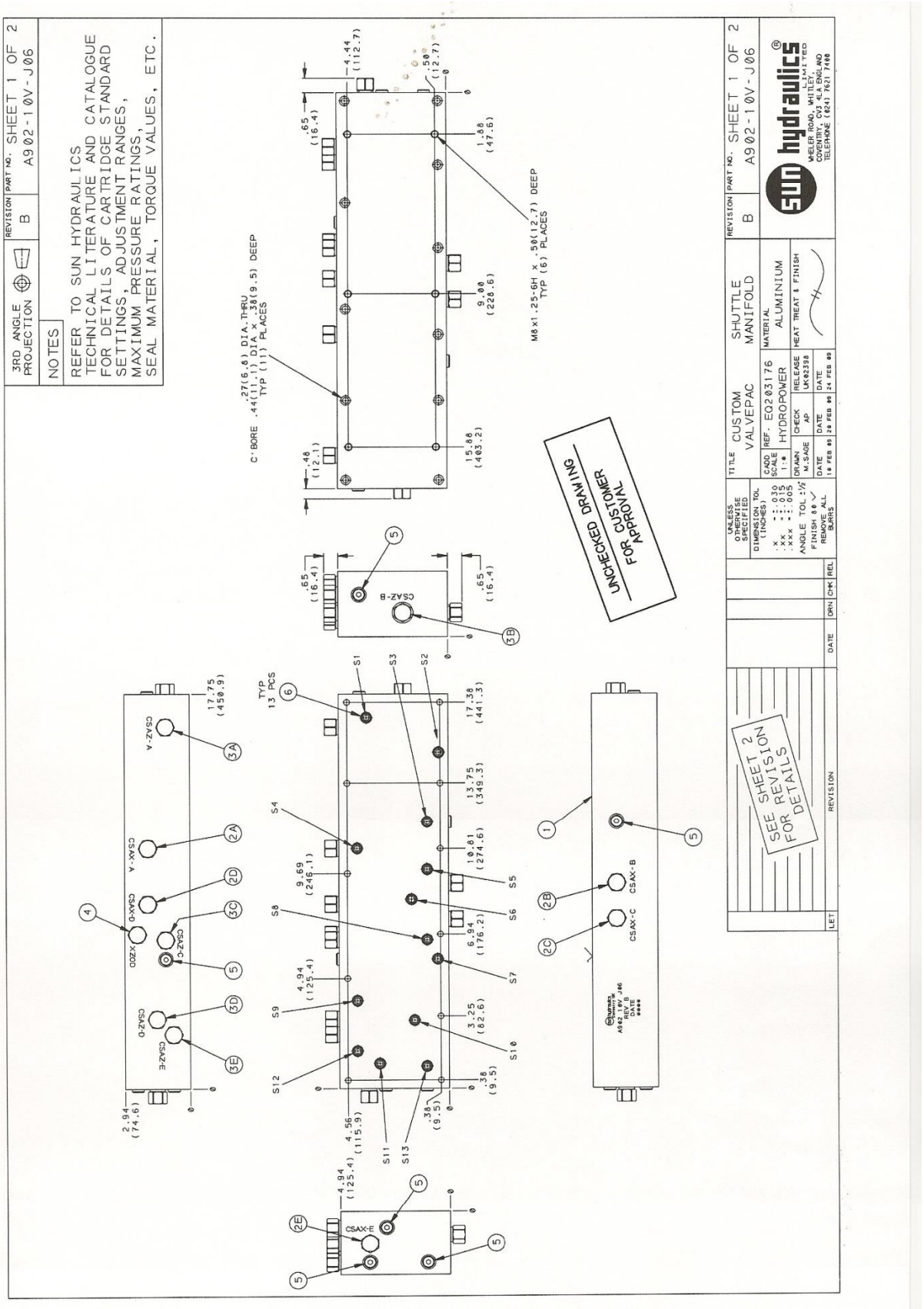


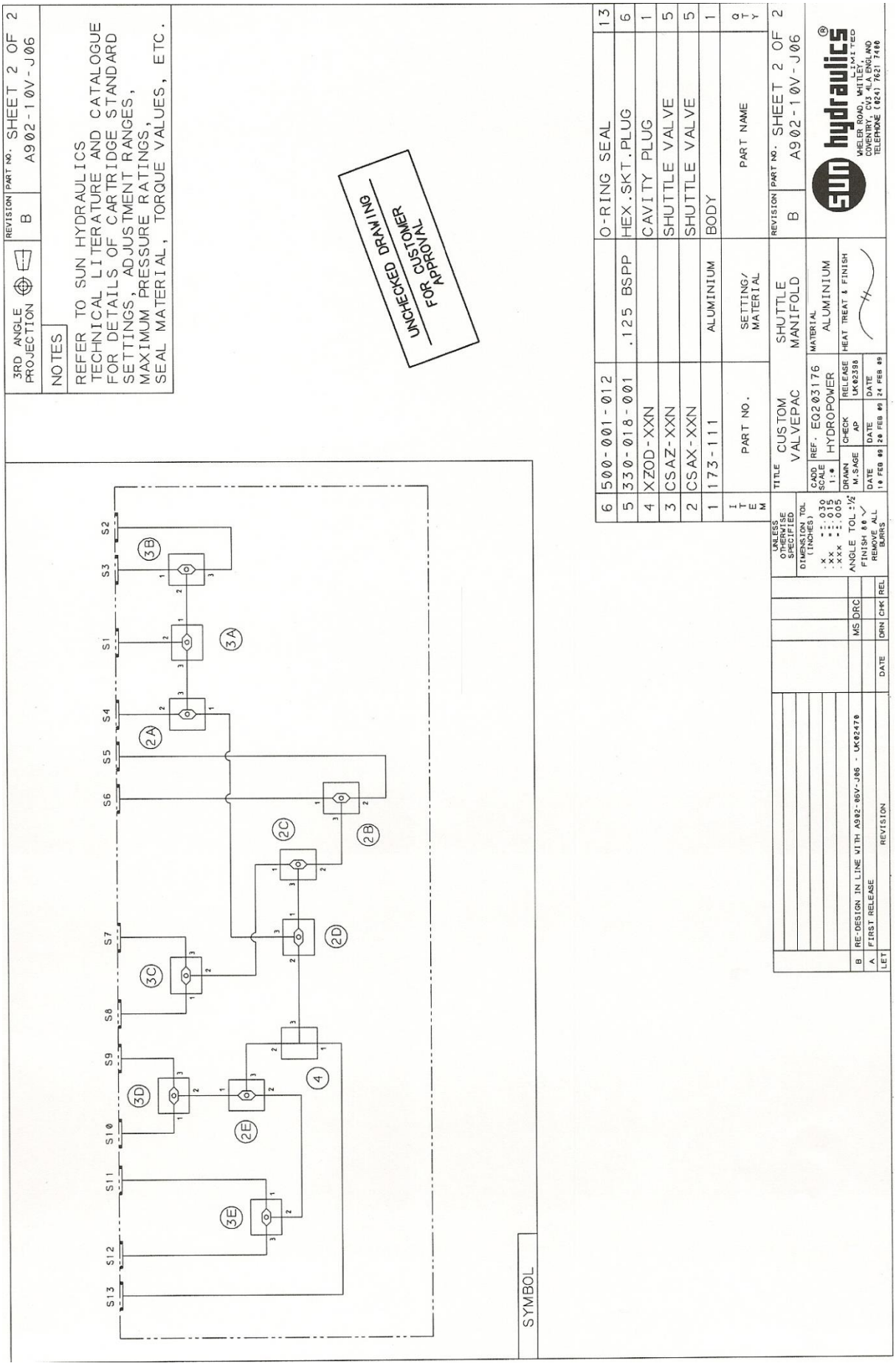
Pos.	Qty.	Type	Description	Manufacturer	Remark
	1	RDB 20/B	Flow control valve	Flucom	For LS.
1	2	PSS 30/2202 - D	Proportional flow control valve	Flucom	
2	1	ETD 30/2202	2/2 Directional spool valve solenoid operated normally closed	Flucom	
3	1	ELP 30/Q2	Pressure compensator	Flucom	
4	1	ETD 30/4205	4/2 Directional spool valve solenoid operated	Flucom	
7	1	CMS 20/D-N	Motion control valve	Flucom	
8	1	RDZ30-D-HG	Flow control valve with check valve	Flucom	
8	5	RDA 20/V	Flow control valve with check valve	Flucom	
9	3	RLY 30/D-N	Pressure reducing valve	Flucom	
10	4	ETD 30/4309	4/3 Directional spool valve solenoid operated	Flucom	
11	3	CAT20	Check valve pilot to open	Flucom	
13	12	CAB10	Check valve	Flucom	
14	1	ELP30/Q1-11	Logic element normally closed	Flucom	
15	1	ELP30/Q2-11	Pressure compensator	Flucom	


Skubber 5 L/min
Låge 5 L/min
Griberarm 5 L/min
Læc arm 23 L/min
Bånd 5 L/min
Rotor 28 L/min
Pakkebord / Udsmider 14 L/min
Nederste
Øverste
FDBA-A
FDBA-B
FDBA-C
FDBA-D
FDBA-E
FDBA-F
30BAR
M
P
LS
T
Ports:
Ports A1, A2, B1, B2,A4,B4,A6,B6,A7,B7,A8,B8= G¼"
Ports A3, B3, A5,B5,= G½"
Ports A4,A9 B4,B9= G¼"
Port C,D,P,T = G¾"
Port E,¾"
Tegnet af/Designed by
evwo
Projekt ansvarlig/Projekt manager
TOKN
Mat.
-
Dato/Date
20.04.2009
Målforhold/Scale
-
Kunde/Customer
POMI APS
Emne/Title
HYDRAULIK FOR WRAPPER TIL MINIBALLER
Tegnings nr./Drawing no.
A51358 - 51217
Rev.
D
HYDROPOWER
HYDROPOWER A/S Lammefjordsvej 2,4715 Esbjerg N
www.hydropower.dk,Tlf. +45 75 14 44 44


3RD ANGLE PROJECTION
REVISION C
PART NO. A902-06V-J06
SHEET 1 OF 2
NOTES
REFER TO SUN HYDRAULICS TECHNICAL LITERATURE AND CATALOGUE FOR DETAILS OF CARTRIDGE STANDARD SETTINGS, ADJUSTMENT RANGES, MAXIMUM PRESSURE RATINGS, SEAL MATERIAL, TORQUE VALUES, ETC.
ENGINEERING VALIDATION REQUIRED
1. AFTER STAMPING.
2. AFTER MANIFOLD FINISH.
SPECIAL INTERFACE MATCHES S-UTTLE MANIFOLD AS02-18V-J06
SEE SHEET 2 FOR REVISION DETAILS
TITLE CUSTOM VALVEPAC WRAPPER MANIFOLD
REF. EQ203153 HYDROPOWER
MATERIAL ALUMINIUM
HEAT TREAT & FINISH
DRAWN M.SAGE DATE 05 FEB 09
CHECK AP DATE 13 FEB 09
RELEASE UK02393 DATE 19 FEB 09
CADD SCALE 1:1
UNLESS OTHERWISE SPECIFIED DIMENSION TOL X (INCHES) .xx ±.030 .xxx ±.015 .xxx ±.005 ANGLE TOL ±½ FINISH 63 REMOVE ALL BURRS
REVISION DATE DRN CHK REL
LET
hydraulics
SUN HYDRAULICS LIMITED WHELER ROAD WHITLEY COVENTRY, CV3 4LA ENGLAND TELEPHONE (024) 7621 7400


3RD ANGLE PROJECTION
REVISION C
PART NO. SHEET 2 OF 2
A902-06V-J06
NOTES
REFER TO SUN HYDRAULICS TECHNICAL LITERATURE AND CATALOGUE FOR DETAILS OF CARTRIDGE STANDARD SETTINGS, ADJUSTMENT RANGES, MAXIMUM PRESSURE RATINGS, SEAL MATERIAL, TORQUE VALUES, ETC.
PORTS
A1, B1, A2, B2, A4, B4, A6, B6, A7, B7, .250 BSPP
A8, B8, LS, M & E ..... .500 BSPP
A3, B3, A5 & B5 ..... .750 BSPP
P, T, C & D .....
17 330-018-005 .750 BSPP HEX.SKT.PLUG 2
16 330-018-003 .375 BSPP HEX.SKT.PLUG 2
15 330-018-002 .250 BSPP HEX.SKT.PLUG 7
14 330-018-001 .125 BSPP HEX.SKT.PLUG 1
13 FPCC-MDN-2B12V 12V DC ELEC.PROP.FLOW CONTROL 1
12 FPCC-MCN-2B12V 12V DC ELEC.PROP.FLOW CONTROL 1
11 DLDA-MCN-212 12V DC 2-POS,2-WAY SOL.VALVE 1
10 DNDC-XYN-212 12V DC 3-POS,4-WAY SOL.VALVE 4
9 DNDA-XNN-212 12V DC 2-POS,4-WAY SOL.VALVE 1
8 FDBA-LAN FLOW CONTROL VALVE 6
7 LPBC-XFN N.O.LOGIC ELEMENT 2
6 DBAM-LCN 2-POS.2-WAY DIR.VALVE 1
5 CKCB-XAN P.O.CHECK VALVE 3
4 CBCA-LHN COUNTERBALANCE VALVE 1
3 PPDB-LBN SET AT 30 BAR PRESS.RED.VALVE 1
2 LRDC-XHN N.C.MODULATING ELEMENT 1
1 173-104 BODY 1
ITEM PART NO. SETTING/MATERIAL PART NAME QTY
UNLESS OTHERWISE SPECIFIED
DIMENSION TOL (INCHES)
.x ± .030
.xx ± .015
.xxx ± .005
ANGLE TOL ±½°
FINISH 63 √
REMOVE ALL BURRS
TITLE CUSTOM VALVEPAC WRAPPER MANIFOLD
CADD SCALE 1:1
REF: EQ203153 HYDROPOWER
MATERIAL ALUMINIUM
DRAWN M.SAGE DATE 05-FEB-09
CHECK AP DATE 13 FEB 09
RELEASE UK02393 DATE 19 FEB 09
HEAT TREAT & FINISH
REVISION C PART NO. SHEET 2 OF 2 A902-06V-J06
SUN hydraulics
WHELER ROAD, WHITLEY, COVENTRY, CV3 4LA ENGLAND
TELEPHONE (1824) 7621 7400
C RE-DESIGN FOR LRDCHN - UK02468 02 APR 09 MS DRC
B ITEM 17 ADDED - UK02429 04 MAR 09 MS AP
A FIRST RELEASE MS
LET REVISION DATE DRN CHK REL
SPECIAL INTERFACE
MATCHES WITH A902-10V-J06
ENGINEERING VALIDATION REQUIRED
1. AFTER STAMPING.
2. AFTER MANIFOLD FINISH.
SYMBOL


3RD ANGLE PROJECTION
REVISION B
PART NO. A902-10V-J06 SHEET 1 OF 2
NOTES
REFER TO SUN HYDRAULICS TECHNICAL LITERATURE AND CATALOGUE FOR DETAILS OF CARTRIDGE STANDARD SETTINGS, ADJUSTMENT RANGES, MAXIMUM PRESSURE RATINGS, SEAL MATERIAL, TORQUE VALUES, ETC.
UNCHECKED DRAWING FOR CUSTOMER APPROVAL
SEE SHEET 2 FOR REVISION DETAILS
TITLE CUSTOM VALVEPAC SHUTTLE MANIFOLD
REF - EQ203176
HYDROPOWER
MATERIAL ALUMINIUM
HEAT TREAT & FINISH
REVISION B
PART NO. A902-10V-J06 SHEET 1 OF 2
sun hydraulics
CSAX-A
CSAX-B
CSAX-C
CSAX-D
CSAX-E
CSAZ-A
CSAZ-B
CSAZ-C
CSAZ-D
CSAZ-E
M8x1.25-6H x .50(12.7) DEEP TYP (6) PLACES
C'BORE .44(11.1) DIA x .38(9.5) DEEP TYP (11) PLACES


3RD ANGLE PROJECTION
REVISION B
PART NO. SHEET 2 OF 2 A902-10V-J06
NOTES
REFER TO SUN HYDRAULICS TECHNICAL LITERATURE AND CATALOGUE FOR DETAILS OF CARTRIDGE STANDARD SETTINGS, ADJUSTMENT RANGES, MAXIMUM PRESSURE RATINGS, SEAL MATERIAL, TORQUE VALUES, ETC.
UNCHECKED DRAWING FOR CUSTOMER APPROVAL
SYMBOL
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13
3A 3B 3C 3D 3E 2A 2B 2C 2D 2E 4
ITEM
6 500-001-012 O-RING SEAL 13
5 330-018-001 .125 BSPP HEX.SKT.PLUG 6
4 XZOD-XXN CAVITY PLUG 1
3 CSAZ-XXN SHUTTLE VALVE 5
2 CSAX-XXN SHUTTLE VALVE 5
1 173-111 ALUMINIUM BODY 1
ITEM PART NO. SETTING/MATERIAL PART NAME QTY
TITLE CUSTOM VALVEPAC SHUTTLE MANIFOLD
REF. EQ2031176 HYDROPOWER
MATERIAL ALUMINIUM
HEAT TREAT & FINISH
DRAWN M.SAGE DATE 10 FEB 98
CHECK AP DATE 24 FEB 98
RELEASE UK02398
REVISION B PART NO. SHEET 2 OF 2 A902-10V-J06
UNLESS OTHERWISE SPECIFIED
DIMENSION TOL (INCHES) .X ±.030 .XX ±.015 .XXX ±.005
CADD SCALE 1:1
ANGLE TOL ±½°
FINISH 63
REMOVE ALL BURRS
B RE-DESIGN IN LINE WITH A902-06V-J06 - UK02470 MS DRC
A FIRST RELEASE DATE DRN CHK REL
LET REVISION
sun hydraulics LIMITED
WHELDER ROAD, MILLER ESTATE, COVENTRY, CV3 4LB, ENGLAND
TELEPHONE (024) 7621 7480

9. Common faults

Fault	Remedy
Film ruptures when started	There may by plastic residue in the gripper. Clean out. The rotor overruns and makes the plastic stick to the gripper when it is drawn downwards. Adjust in the computer: either reduce the time function of the rotor or reduce the end speed of the rotor. Adjust the knife if the plastic is cut too early, meaning that the gripper does not catch it.
Film ruptures during wrapping	Check that the pre-stretchers run lightly. If they are worn or damaged: replace. The film roll runs up leaving the plastic slack. When the machine is started again, the film bursts. Reduce the speed of the rotor. The spring that keeps the rollers against the film should be tighter.
Bale gets stuck in the plastic when it is pushed out of the wrapper table.	Check the knife, replace or adjust, as required.
Bale is on its side when it reaches the collector table.	Increase the speed of the wrapper table. Check whether the bale sticks to the plastic ends; adjust knives, if necessary.
Bale is not positioned on the flat surface when finally wrapped.	Adjust Bale pos. max. error. If the value is too high the bale stands skewed. Is it too low, the bale continues to rotate.
Machine has stopped and will not restart.	Check that the load arm is in the correct position. Check that the rotor is in the correct position. Check that the collector table pusher is in the correct position. Check that the last bale has left the machine and has activated the collector table sensor. Stop the machine, press reset and restart.

10. Technical Data

Oil consumption	**60 litres**
Hydraulic oil connection	**1 double-acting/Min. 150 Bar**
Current	**12 V**
Width during transportation	**2.65 metres**
Length	**3.80 metres**
Height	**2.20 metres**
Weight	**850 kg**
Wheels	**2 x 26-12 D = 640 mm**
Max. bale compression	**10 cm**