75C-90C
(English)

Service Manual

01-0018E

Reprinted

CASE

CLICK HERE TO DOWNLOAD THE COMPLETE MANUAL

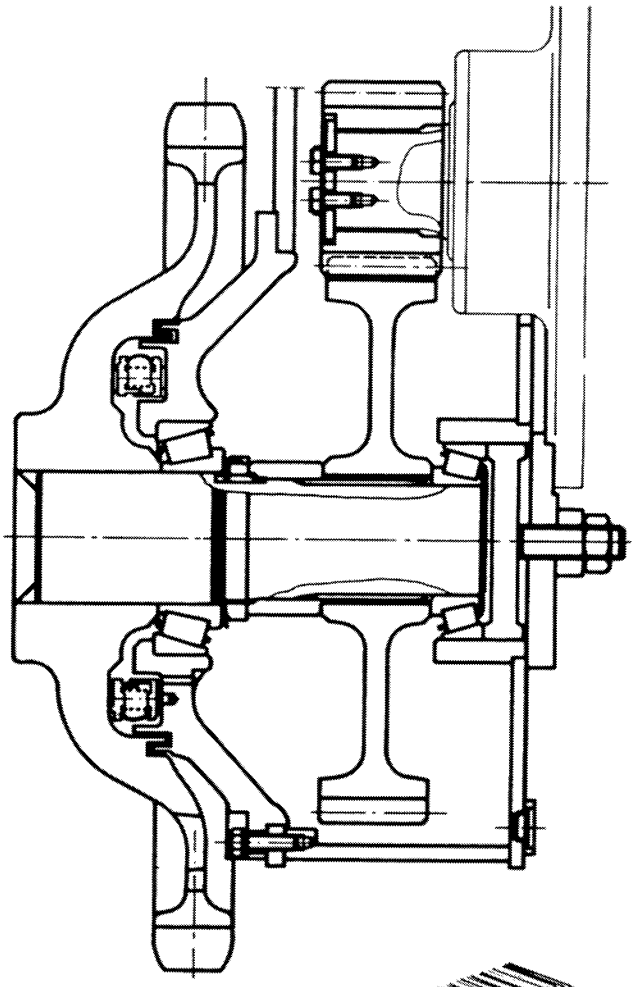
- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below

- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO DOWNLOAD THE COMPLETE MANUAL

PINION–TYPE REDUCTION GEAR

FUNCTION :
Reduce the speed transmitted by the hydraulic motor, and accordingly increase the torque in the reduction gear ratio.



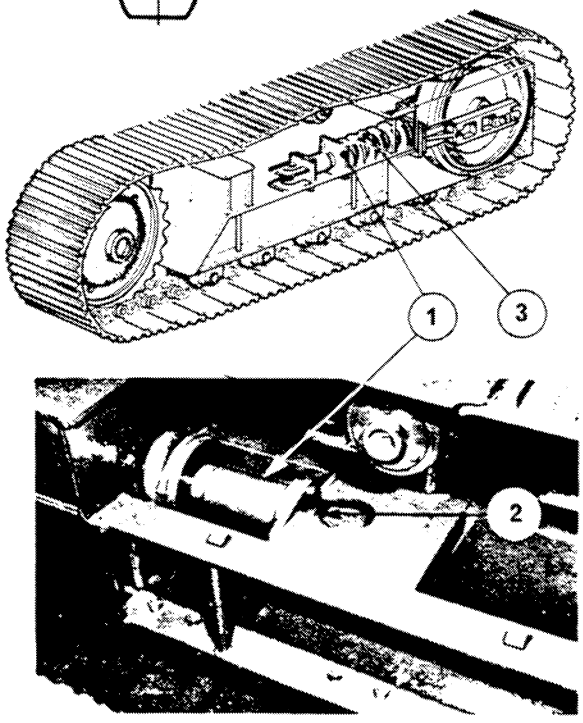
	75C	75CL	90C	90CL	90CK
Hyd. mot.	1100cm3	1250cm3	1250cm3	2000cm3	2000cm3
No. of teeth PINION	17	17	15	20	28
WHEEL	56	56	63	59	50
MODULE	7	7	8	8	10
Reduction ratio	0,303	0,303	0,238	0,339	0,560
Theoretical torque at sprocket wheel at 320 bars (m.daN)	1749	2013	2563	2831	1714

TRACK TENSIONER WITH SHOCK ABSORBER

Track tension is effected by a grease cylinder (1)

To slacken the track, unscrew grease fitting (2) to allow the grease to flow out of the cylinder,

A spiral spring (3) dampens impacts which may be encountered by the track.



INTRODUCTION

On machines 75 C and 90 C, travel, upperstructure swing motion and attachment functions are effected hydraulically by the VARIODYN circuit.
In this circuit, flow selectors enable one function to be backfed in preference to another so as to concentrate all the power where it is needed, and obtain maximum speed and efforts in all operating phases.
This power is also used depending on the type of work to be effected.
– For HEAVY LIFT, the VARIODYN circuit increases the lifting capacities of the machine and reduces speed of movements to attain precision.
– When in WORKING position, the circuit provides the efforts required for digging and extracting, and speed to reduce the non-productive periods of the working cycle (upperstructure swing, raising and lowering of attachment).

– When in TRAVEL position, the VARIODYN circuit makes for two important conditions :
speed for travelling on level ground
efforts for climbing slopes.

In all cases use of the VARIODYN circuit gurantees synchronization of functions between themselves and combination of movements of boom, dipperstick and bucket.

Power regulation by feed flow modulation (MODULATED flow) enables constant use of the full engine power.

Finally the VARIODYN circuit consists of a number of a components whose characteristics improve the hydraulic output of the circuit and the performances of the machine.

* Reduction of load losses of the circuit (losses caused through heating of oil) by adopting components in moulded steel (e.g. valve bank).
* Bracket-type unions to guarantee tightness.
* Piping of adequate dimensions.

DESCRIPTION

1 – Pump delivering four fixed identical flows Q1, Q2, Q3, Q4.
2 – 3S19 series-type valve bank, power-supplying boom, dipperstick and bucket cylinders respectively.
3 – 3S19 inlet block comprising :
  – Flow selector (A) with two hydraulically controlled positions.
  – Discharge valve (C).
4 – Outlet block fitted with flow selector (B) with two hydraulically controlled positions.
5 – Make and break assembly, operating at 190 bars to eliminate Q3.
6 – Make and break assembly, operating at 280 bars to eliminate Q4.
7 – 3P22 parallel-type valve bank comprising :
  – P22 control valve (8) power-supplying swing motor.
  – Two P22 control valves (9) power-supplying right and left-hand drive motors.
  – A flow regulator valve assembly (speed limiter) (10).
11– Manually controlledlow pressure flow selector, enabling different positions to be obtained (WORK-TRAVEL-CLAMSHELL).
12– Electrically controlled flow selector for obtaining HEAVY- LIFT. position.

11 – Parallel-type valve bank (3 P 22) comprising :
- 11 a – Inlet block.
- 11b – Swing motion control parallel-type control valve.
- 11c – Swing motion forcible feed and safety bracket.
- 11d – Intermediate plate.
- 11e – Right-hand travel control parallel-type control valve.
- 11f – Inlet block.
- 11g – Left-hand travel control parallel-type control valve.
- 11h – Flow regulator valve (speed limiter)
- 11i – Pressure selector (shuttle ball)
- 11j – Forcible feed safety bracket for right-hand drive hydraulic motor.
- 11k – Forcible feed safety bracket for left-hand drive hydraulic motor.

12 – Hydraulic swing motor.

13 – Restrictor-type union with filter (for warming-through)

14 – Swing joint.

15 – Right-hand drive hydraulic motor.

16 – Left-hand drive hydraulic motor.

17 – Restrictor-type union with filter (for warming-through)

18 – Restrictor-type union with filter (for warming-through)

19 – Flow selector with four notched positions (manual control)

20 – Flow selector with four positions and drawback spring (electrical control)

21 – Electric switch (on right-hand lever) (HEAVY LIFT control)

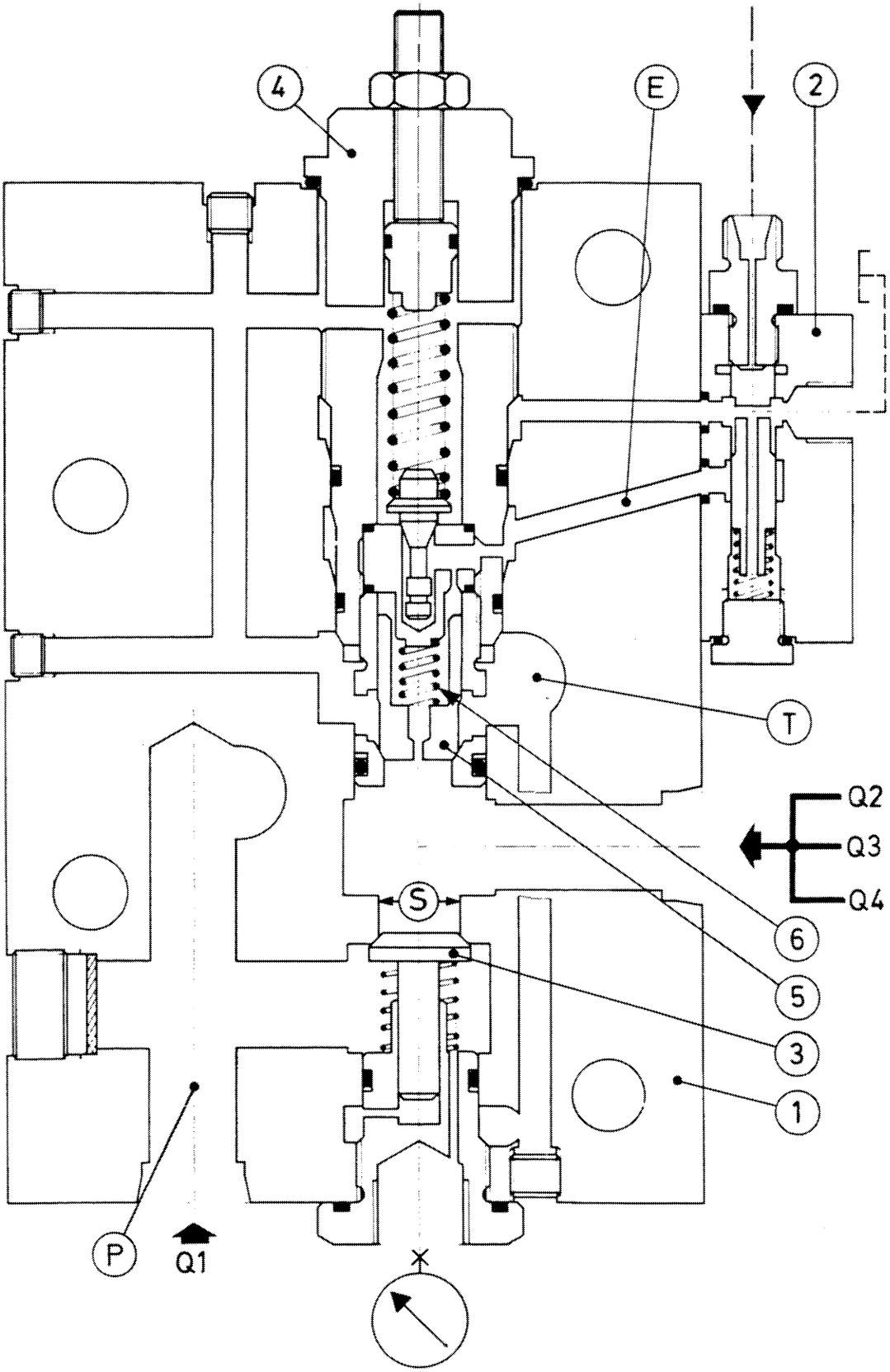
22 – Flow selector with two notched positions (manual control)

23 – Hydraulic accumulator.

24 – Gear-type hydraulic motor comprising;
- 24a – Motor with externally toothed gear.
- 24b – Discharge valve.

25 – Ventilated cooler.

26 – Counter-pressure valve.


4
E
2
T
Q2
Q3
Q4
S
6
5
3
1
P
Q1

SWING JOINT

The swing joint ensures passage of high and low pressure oil between the fixed carrier frame and the rotary upperstructure.

DESCRIPTION

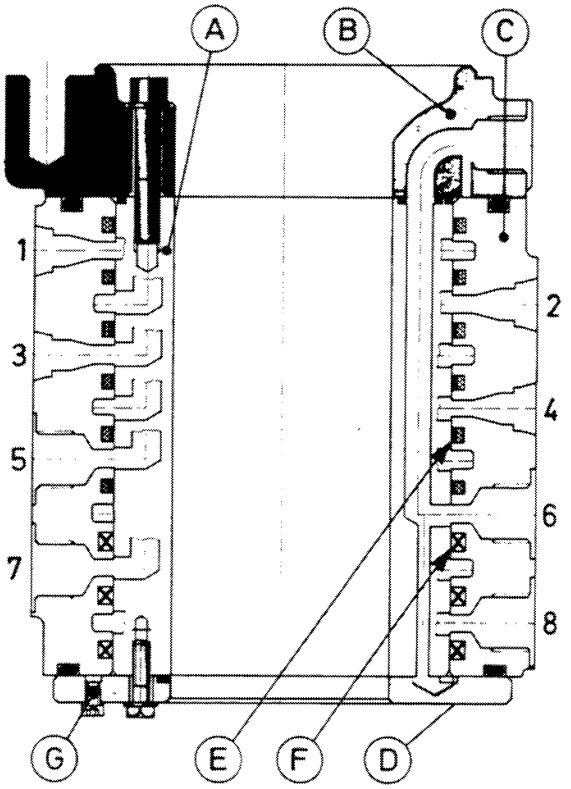
– The swing joint consists of two parts :
The inner body (A) which turns with the upperstructure, onto which head-piece (B) and washer (D) are screwed.
– Outer bush (C) which is immobilized to the carrier frame by a clamp.

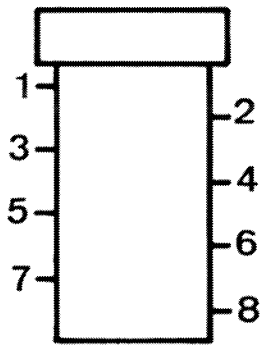
The four upper passages are reserved for high pressure oil. They are isolated between themselves by Composite seals (E).

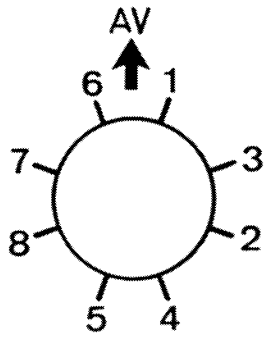
The four lower passages are reserved for low pressure oil.
Tightness is ensured by 4 - lobe seals (F).

Lubrication is effected by the leak return (6). Bleed screw (G) permits renewal of the lubrication oil at regular intervals.

CONNECTING PIPING

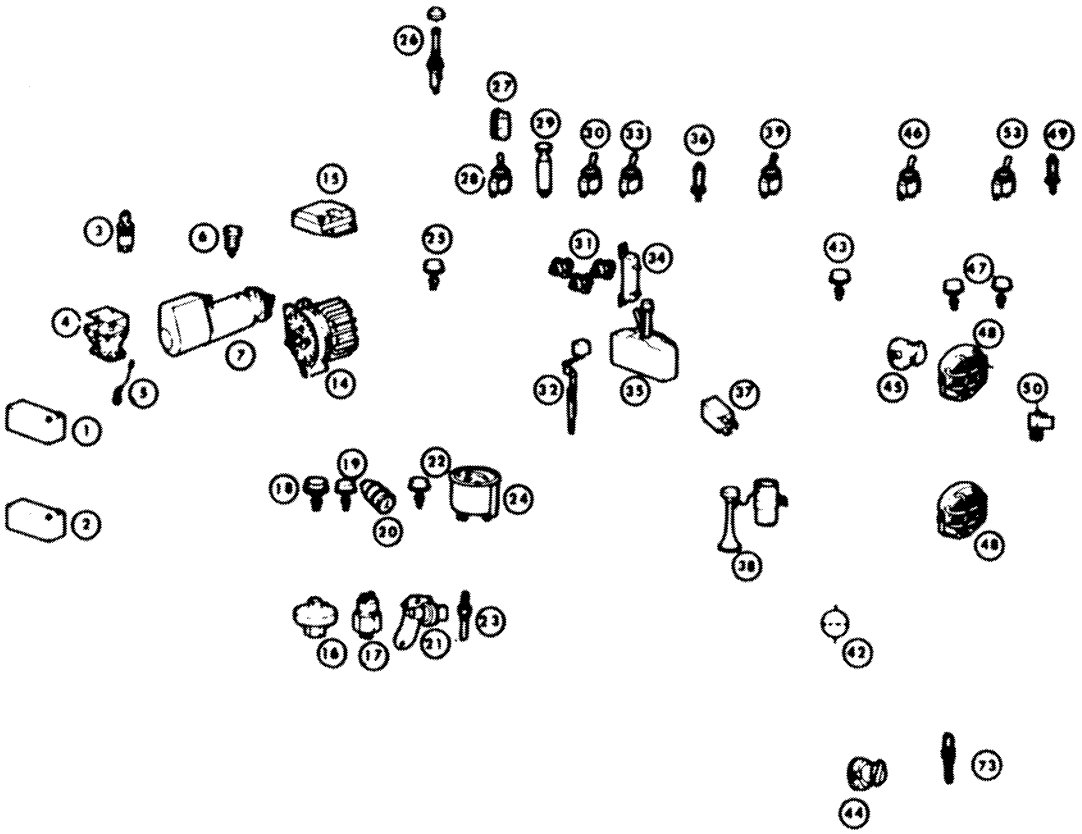






1 – Right-hand travel
2 – Left-hand travel
3 – Right-hand travel
4 – Left-hand travel
5 – Hydraulic motor brake release
6 – Warming-through return
7 – Warming-through inlet
8 – Small capacity pilot circuit

N.B : The four upper passages (1-2-3-4) have bracket-type connections. The four lower passages (5-6-7-8) have screw-type connections.


26
27
29
30
33
36
39
46
53
49
15
3
6
23
31
34
43
47
4
7
14
48
5
22
33
45
50
37
1
19
22
18
24
20
2
38
48
16
17
21
23
42
44
73


72


71

CLICK HERE TO DOWNLOAD THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below

- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO DOWNLOAD THE COMPLETE MANUAL