TEREX LIFT

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# WORKSHOP MANUAL

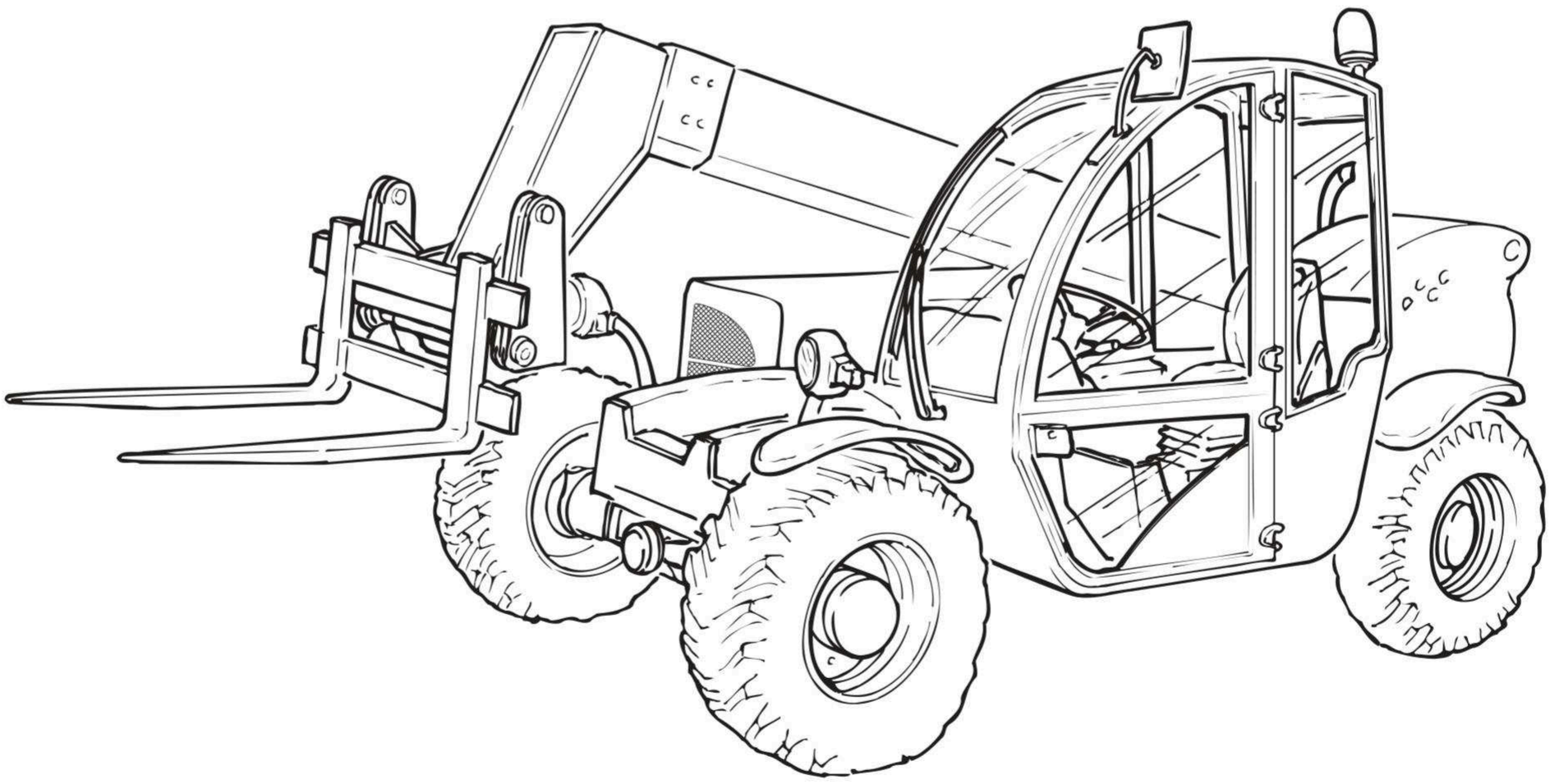
*Cod. 57.4400.6400 - 2nd Edition 06/2007*

## *Handler with telescopic boom*

# TELELIFT 2306 - 2506 - 3007

# GLADIATOR

# AGRILIFT 357 - 359



**English**

**Edition**



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# Section A
# GENERAL INFORMATION

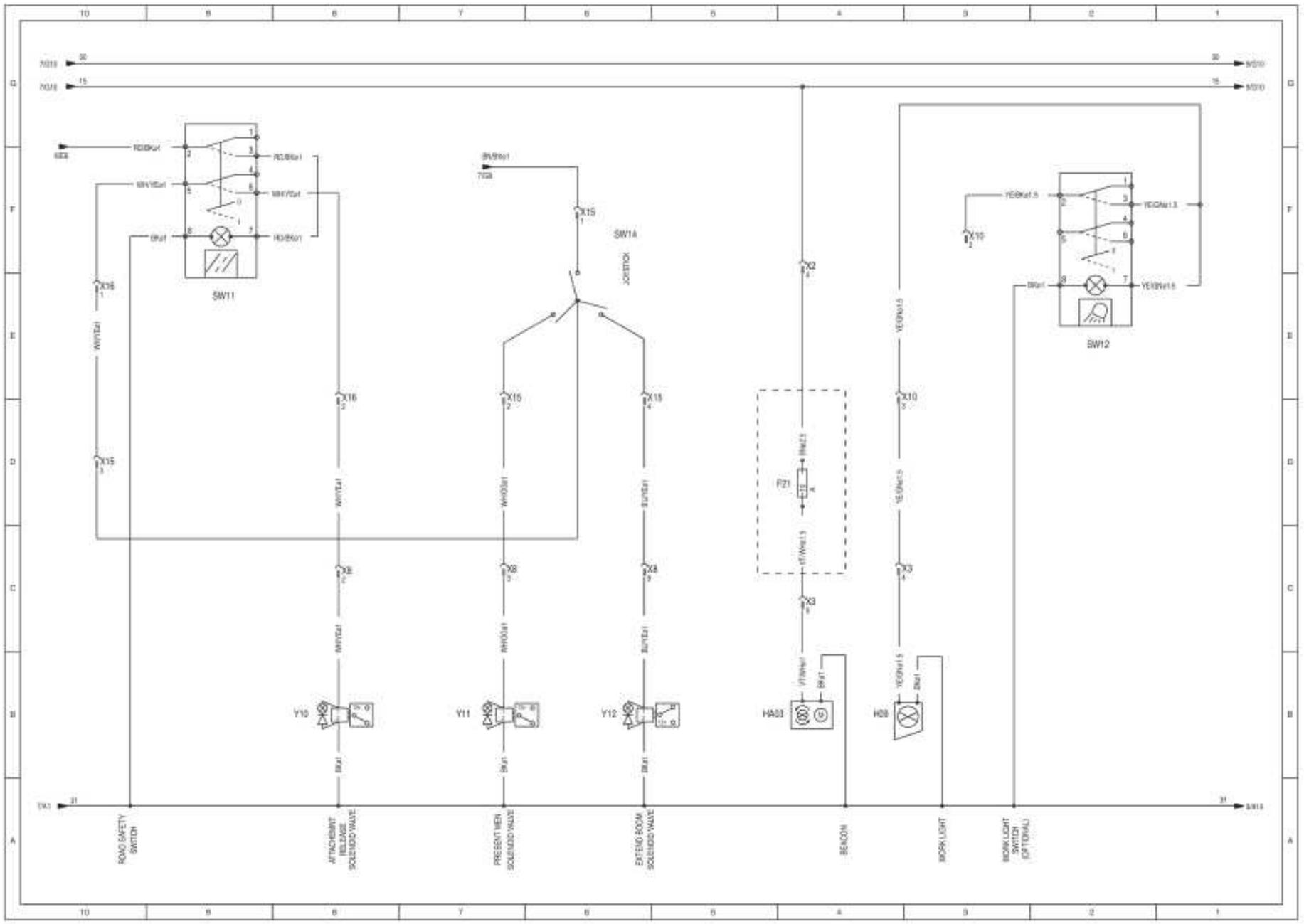
## SECTION INDEX


| | | |
|---|---|---|
| A.01 | Introduction ..... page | 2 |
| A.02 | Symbols used in the manual ..... | 3 |
| A.03 | Abbreviations ..... | 4 |
| A.04 | Units of measure ..... | 5 |
| A.05 | Minimum workshop equipment ..... | 6 |
| A.06 | Special tools and equipment ..... | 7 |
| A.07 | Bolt and nut tightening torques ..... | 11 |
| A.08 | Drill diameters for threads ..... | 13 |
| A.09 | Fitting tightening torques ..... | 14 |
| A.10 | Threadlockers, thread sealants and gaskets ..... | 16 |
| A.11 | Hoisting instructions ..... | 17 |
| A.12 | Weight list of the main parts ..... | 18 |
| A.13 | Advice to renew flexible hoses ..... | 19 |
| A.14 | Repair interventions, welds and weld materials ..... | 21 |
| A.15 | Weld material ..... | 23 |
| A.16 | Checks with liquid penetrants ..... | 24 |
| A.17 | Checks with magnetoscope ..... | 25 |
| A.18 | Refilling and product specifications ..... | 26 |
| A.19 | Machine paint coulours ..... | 26 |
| A.20 | Lists of recommended spare parts ..... | 27 |




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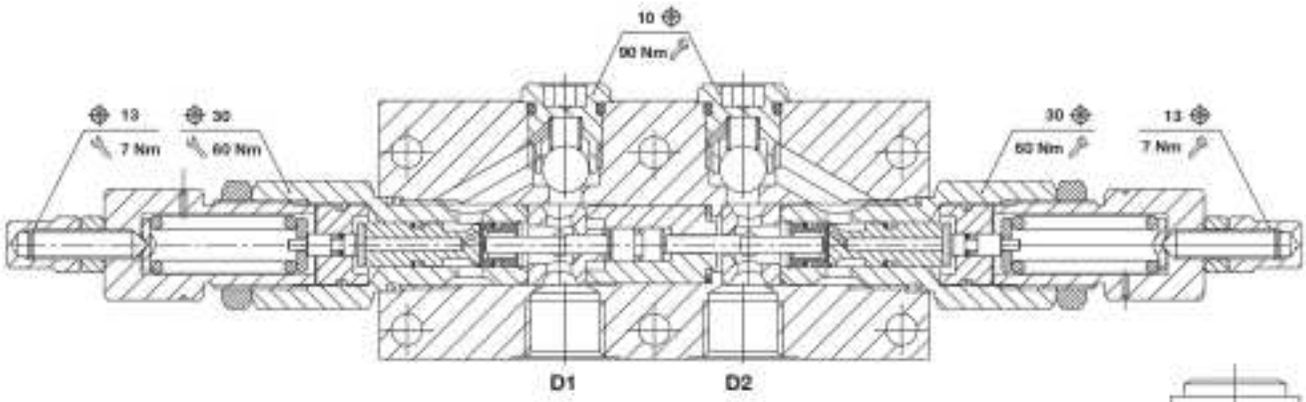
| Operation: Wiring diagram - Telelift 3007 | Table: C.05.03.08 |
|---|---|

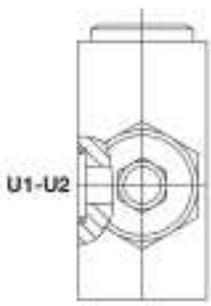





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| Operation: | Table: |
|---|---|
| Fork movement cylinder blocking valve - Telelift 2306 | C.10.03.01 |




**FILTRATION - OIL CONTAMINATION**

| TYPE OF SYSTEM<br>TYPE OF VALVE | RECOMMENDED CONTAMINATION LEVEL - ISO 4406 |
|---|---|
| - High performance systems<br>- Systems with working pressures from 210 to 350 bar<br>- Systems with proportional controls<br>- Systems with high frequency cycles | 16/13 |
| - Systems with working pressures up to 210 bar<br>- Spool valves<br>- Valves with calibrated orifice | 18/14 |
| - Systems with low working pressures<br>- Piloting systems<br>- Systems with low frequency cycles | 19/15 |

**MATERIAL**

Body: Aluminium 702 State T6
Internal parts: case-hardened and tempered steel

**TECHNICAL DATA**

Max flow = 70 l/min
Max pressure = 210 Bar
Setting = 50 - 350 bar
(test setting 40 bar with 5 l/min)
Piloting ratio = 1:3
Fluid: 20-200 cSt mineral oil
Ambient temperature = 0 +40 °C
Gaskets : BUNA N

**BLOW-BY**

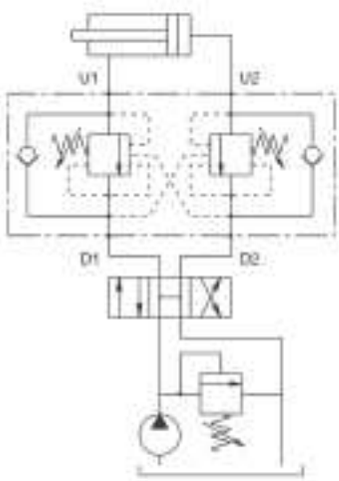
Blow-by from U1 to D1: 0.25 cc/min (5 drops) at 210 bar and 80% the setting value of the spring with oil with 46 cSt viscosity

**FITTINGS**

D1 - D2 = G 1\2"
U1 - U2 = FLANGED

Cylindrical fitting tightening torque = 60 Nm (do not use conical fittings)

**INSTALLATION SCHEME**






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| Trouble | Cause | Solution |
|---|---|---|
| | • DFE solenoid valve damaged | • Check the efficiency and replace if necessary |
| **The joystick does not operate the boom extension/ retraction although the checks mentioned in the previous point have been carried out** | • Load cell damaged<br>• ARB display | • Check the efficiency and replace if necessary<br>• Check the efficiency of the display |
| **The joystick does not operate any movement** | • 7.5A fuse F20 blown<br>• Road-jobsite-platform selector damaged<br>• Deadman pushbutton on control lever<br>• Control block selection valve<br>• Broken or damaged wiring | • Change the fuse<br>• Check and replace the selector if necessary<br>• Check the efficiency of the deadman pushbutton<br>• Check the efficiency of the electrical coils and replace if they are damaged<br>• Reconnect or replace the wiring |



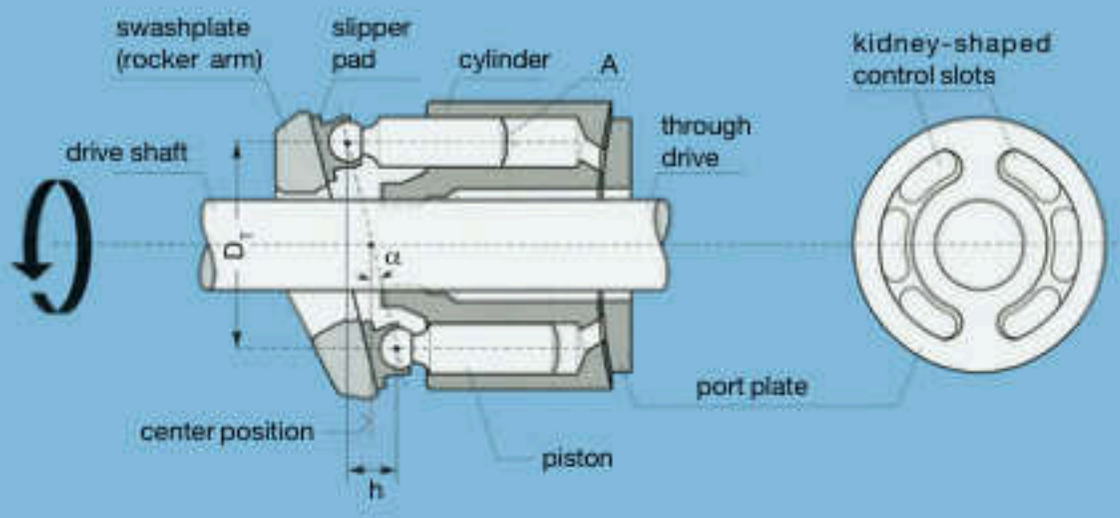
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## 2.2 Swashplate



Example:
Variable Displacement Pump with electro-hydraulic control, speed-related closed loop control and built-on auxiliary pump

**Schematic Diagram of a Swashplate Unit (with pistons parallel to axis)**
with fixed or variable swivel angle α




h = piston stroke
A = piston area
$D_T$ = pitch diameter when α=0
α = swivel angle (e.g. 20°)
$V_g$ = geom.displacement [cm³/rev.]

x = number of pistons (e.g. 9)
h = $D_T \bullet \tan \alpha$
$V_g$ = $x \bullet A \bullet h$
$V_g$ = $x \bullet A \bullet D_T \bullet \tan\alpha$



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| Operation: Rear axle disassembly | Table: T-034 |
|---|---|

7 With a 22mm wrench, disconnect the connectors of the flexible hoses. Plug all disconnected parts.

**PROTECT THE ENVIRONMENT**

***Used oils must be handled and disposed of according to national regulations. Address to legally authorised centres.***

8 With two 19mm wrenches remove the screw with lock nut fixing the axle pivot pin.

9 Put a screw (or an eyebolt) into the hole M14 of the pin.

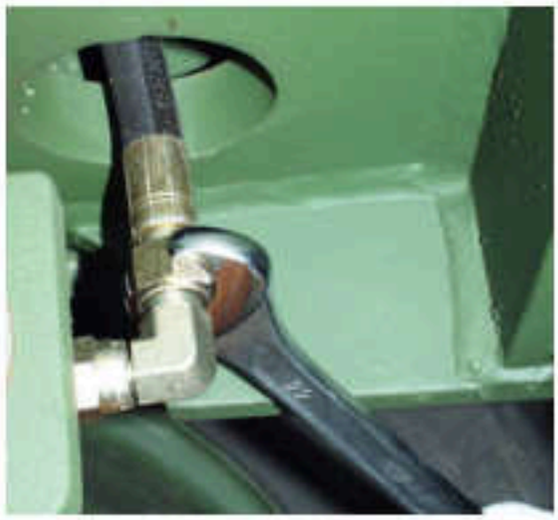
10 Position a pallet with blocks under the rear axle and lower the axle.

11 If the pin is not loaded, it can be pull out by hand. If necessary, increase the load on the pallet or the bridge crane. If the pin can hardly be removed, connect an extractor to the pin or the thread M14 and extract the pin mechanically.

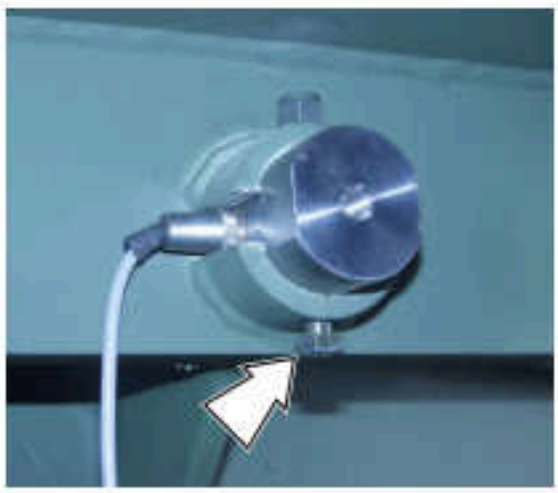
**ATTENTION**

***Do not attempt to knock out the pin with a hammer or other tools. The load cell can get damaged.***

7



8



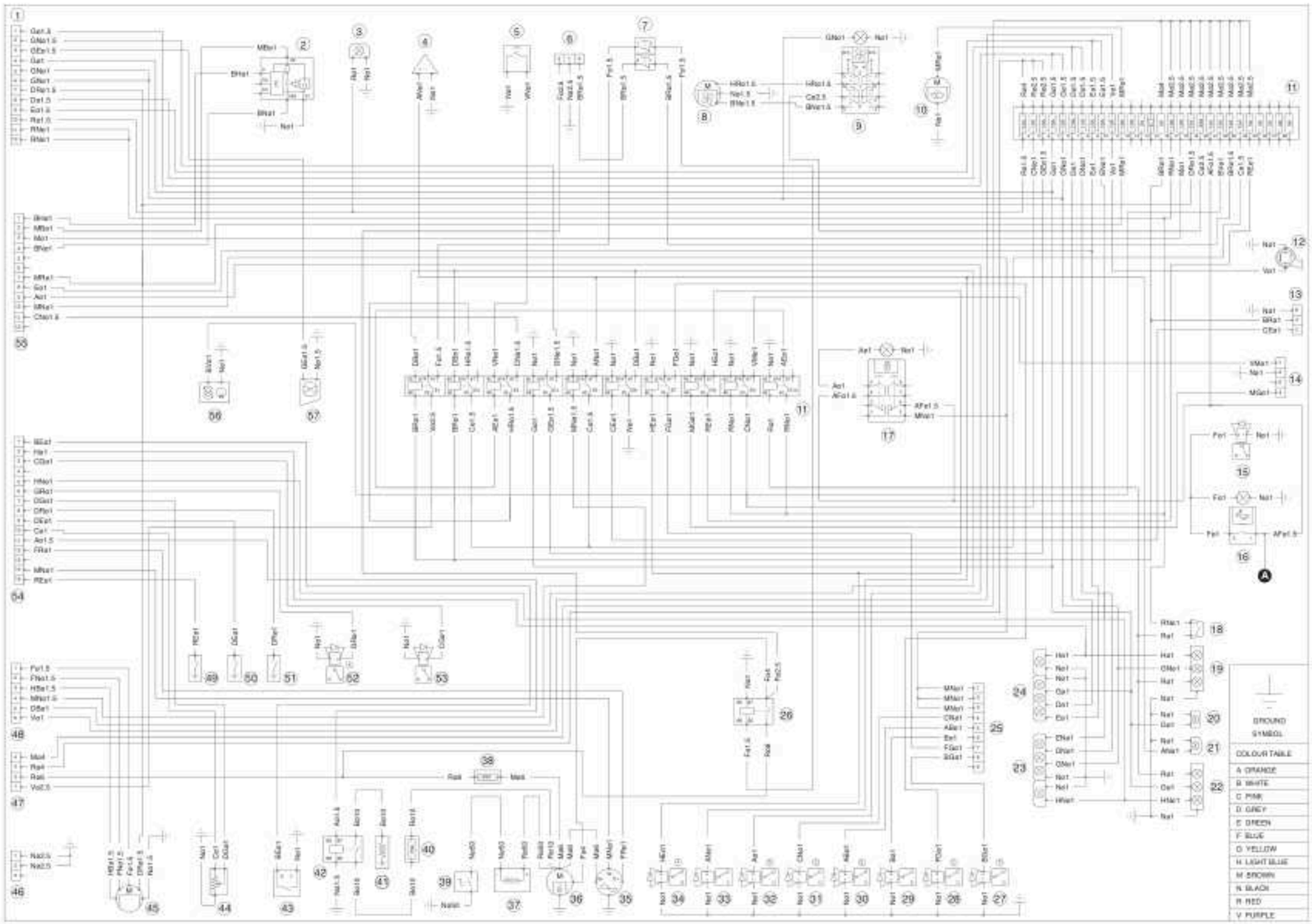
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| Operation: | General wiring diagram - Telelift 2306<br>**(machines produced from January 2002)** | Table: |
|---|---|---|
| | | **C.05.01.03** |




| Ref | Description |
|---|---|
| 1 | 12-WAY FEMALE CONNECTOR - STEERING COLUMN |
| 2 | TURN SIGNAL BLINKING |
| 3 | INTERIOR LAMPS |
| 4 | BACK-UP HORN |
| 5 | SEAT MICRO-SWITCH |
| 6 | ENGINE STOP SOLENOID CONNECTOR |
| 7 | MUSHROOM-HEAD EMERGENCY PUSHBUTTON |
| 8 | HEATING FAN MOTOR |
| 9 | HEATING FAN SWITCH |
| 10 | WINDSCREEN WASHER MOTOR |
| 11 | FUSE AND RELAY BOX |
| 12 | SOUND ALARM |
| 13 | PARKING BRAKE SENSOR |
| 14 | OVERLOAD WARN. SYST. CTR UNIT CONNECTOR |
| 15 | HIGH SPEED SOLENOID |
| 16 | HIGH SPEED SWITCH |
| 17 | ROAD SAFETY SWITCH |
| 18 | HYDROSTOP |
| 19 | RIGHT TAIL LIGHT |
| 20 | LICENSE PLATE LIGHT |
| 21 | BACK-UP LAMP |
| 22 | LEFT TAIL LIGHT |
| 23 | FRONT POSITION LIGHT - LEFT TURN SIGNAL |
| 24 | FRONT POSITION LIGHT - RIGHT TURN SIGNAL |
| 25 | JOYSTICK CONNECTOR |
| 26 | POWER RELAY |
| 27 | ATTACHMENT UNLOCKING SOLENOID |
| 28 | BOOM EXTENSION SOLENOID |
| 29 | DEAD MAN SOLENOID |
| 30 | ATTACHMENT LOCKING SOLENOID |
| 31 | BOOM RETRACTION SOLENOID |
| 32 | FORWARD MOV. SOLENOID |
| 33 | REVERSE MOV. SOLENOID |
| 34 | OVERLOAD WARN. SYSTEM SOLENOID |
| 35 | ALTERNATOR |
| 36 | STARTER MOTOR |
| 37 | 12V-BATTERY |
| 38 | MAXI FUSE - SYSTEM PROTECTION |
| 39 | BATTERY CUT-OUT SWITCH |
| 40 | MAXI FUSE - THERMAL STARTER PROTECTION |
| 41 | THERMAL STARTER |
| 42 | MAXI RELAY - THERMAL STARTER |
| 43 | WATER TEMPERATURE SENSOR |
| 44 | FUEL FLOAT |
| 45 | FRONT WIPER MOTOR |
| 46 | 2-WAY MALE MAXI CONNECTOR - STEERING COLUMN |
| 47 | 4-WAY MALE POWER CONNECTOR - STEERING COLUMN |
| 48 | 6-WAY FEMALE CONNECTOR - STEERING COLUMN |
| 49 | HYDRAULIC OIL TEMPERATURE INDICATOR SENSOR |
| 50 | WATER TEMPERATURE INDICATOR SENSOR |
| 51 | ENGINE OIL PRESSURE SENSOR |
| 52 | STEERING SELECTION SOLENOID VALVE |
| 53 | STEERING SELECTION SOLENOID VALVE |
| 54 | 15-WAY FEMALE CONNECTOR - STEERING COLUMN |
| 55 | 12-WAY MALE CONNECTOR - STEERING COLUMN |
| 56 | BEACON |
| 57 | WORK LIGHT |



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