



Single Drum Pedestrian Roller 45s



Operators and Maintenance Handbook

Manufactured by Tracgrip Hydraulics & Equipment Ltd	
Model No.:	71-0460
Serial No.:	369 Onward

MODEL 71-0460 PEDESTRIAN ROLLER 45s **OPERATORS AND MAINTENANCE HANDBOOK**

<u>INDEX</u>	<u>PAGE</u>
Description	3
Technical Data	3
Layout	4
Operation	5
Maintenance	6
Removing Vibrator Shaft From Roller	7
Checking Oil	8
Relief Valve Settings	8

<u>ATTACHED DRAWINGS</u>	<u>DRAWING No</u>
Water System	71-0445
Handle Assembly	71-0465
Hydraulic Circuit	71-0506
Dimensions	71-0508
Drum and Shaft Assembly	71-0509
Belt Drive	71-0510
Chain Drive and Scraper	71-0511
Electrical Circuit	71-0513

DESCRIPTION

The Tracgrip 45s single drum pedestrian roller is powered by an 8.5 H.P petrol engine, which drives a compact variable displacement hydraulic pump. The pump is connected by two high-pressure hoses to the hydraulic motor, which drives the roller.

The speed of the roller is infinitely variable in forward and reverse directions, and adjustment of speed and direction is controlled by a single lever conveniently placed on the handle.

Vibration is achieved by means of an eccentric rotating shaft which is belt driven from a pulley mounted on the engine output shaft. Vibration on/off selection is by means of a switch at the handle, which operates an electric clutch.

Water to the roller is supplied from a plastic tank mounted at the front of the machine. A tap located near the tank adjusts the water flow to the spray bar.

An engine stop button is provided at the handle as well as on the engine.

Always run the machine at the preset engine revs, i.e. 3,000 rpm.
Failure to do so may cause damage to the hydraulic systems.

The vibration shaft runs at 4,000 rpm when the engine revolves at 3,000 rpm.

TECHNICAL DATA

Working speed:	Infinitely variable, forward and reverse. Forward speed 0 – 4 Km/hr Reverse speed 0 – 3.5 Km/hr
Vibrating force:	1,250 Kg
Vibrating force:	16.6 Kg / cm
Rolling Width:	750mm
Nominal amplitude:	0.4mm
Operating weight:	430 Kg
Engine:	Robin EH25, air-cooled, 4 cycle, single Cylinder, 251cc 8.5 HP@ 4,000 RPM, Recoil starter & 200-watt lighting coil.

Capacities

Engine Oil	10W40 SM (Semi Synthetic)
Engine fuel tank	6 litres
Hydraulic system	10 litres of DX III - Automatic Transmission Fluid
Water system	17 litres
Vibrator Oil	650 millilitres of APIGL-4 Synthetic Gear Oil – 70W80

LAYOUT

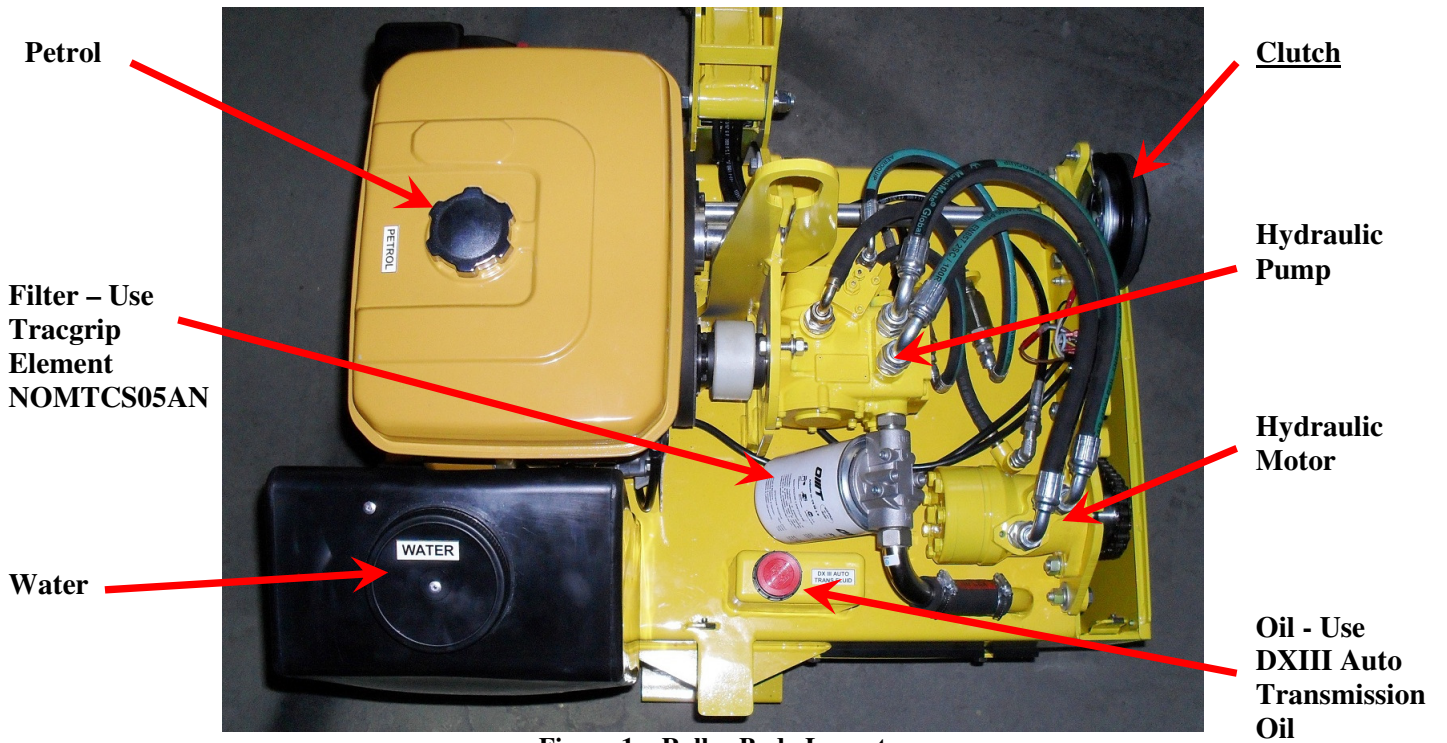


Figure 1 - Roller Body Layout

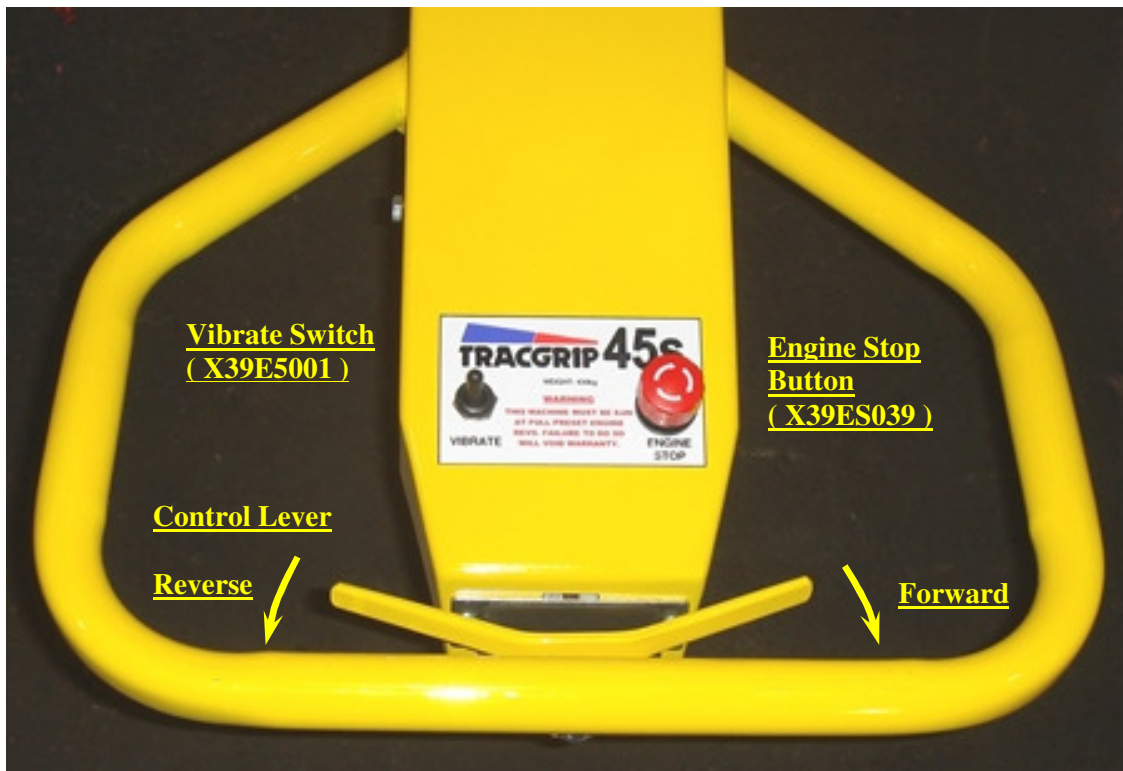


Figure 2 - Roller Handle Layout

OPERATION:

Before Starting	Ensure that the forward – reverse lever is in neutral. Twist the Engine Stop button to ensure it is in the 'Off' position Check water and oil levels
Starting	Start engine, and move throttle to the set speed on the throttle lever. Always operate the machine at the set speed. This will give 4,000 RPM on the vibrator shaft
Stopping	Push the stop button on the engine or at the operators handle
Vibration	Operate the switch at the operators handle to switch the vibrator on or off.
Travel	The lever at the operators handle will give forward or reverse direction of travel.

MAINTENANCE:

Operational Inspection by Operator (Daily)

1. Check water level.
2. Check engine oil level. - If low, top up with 10W40 SM (Semi Synthetic).
3. Check hydraulic oil level. - If low, top up with Automatic Transmission Fluid DX III.
4. Check for oil and water leaks.

Inspection After first 40 hours of Operation

1. Change suction filter element. - Use Tracgrip Part Number: NOMT CS05AN element.
2. Check scrapers for correct adjustment. (See Drawing 71-0512)
3. Check bolts and nuts for tightness.
4. Check belt tension. (See Drawing 71-0510)
5. Check chain tension. (See Drawing 71-0511)

Every 400 hours of Operation

1. Change suction filter element. Use Tracgrip Part Number: NOMT CS05AN element.

6 Monthly Checks

1. Check all of the above, and also check rubber buffers for cracks.
2. Check clutch drive.
3. Check spark plug.
4. General condition of machine.

REMOVAL OF VIBRATING SHAFT FROM ROLLER (See Drawing 71-0509)

1. Position machine under lifting hook and place hook into lifting eye to take weight of machine.
2. Remove pulley, plate wheel sprocket and thrust washer (*items 3, 6 and 14*) from R.H side of machine.
3. Remove cap (*item 7*) from L.H side of machine.
4. Remove R.H side plate (*item 1*).
5. Slide roller assembly out from frame.
6. Tip roller onto one end with shaft extension pointing upwards. (To avoid loss of Oil).
7. Remove flange (*item 8*) from rubber buffers.
8. Remove bearing housing (*item 11*) complete with oil seal from roller, taking care not to damage seal and to ensure tube (*item 12*) remains in position, to avoid loss of oil.
9. Lift shaft from roller.
10. Check condition of bearings and oil seal and replace if necessary.

REPLACING VIBRATING SHAFT INTO ROLLER

Reverse of above procedure. Take care not to damage oil seal.
Fasten all bolts with 262 locite.

NOTE: CLEANLINESS IS IMPORTANT AT ALL TIMES

OIL USED IN ROLLER IS: APIGL-4 Synthetic Gear Oil – 70W80

Quantity of oil used is 600 millilitres maximum.

CHECKING OIL

To check oil level:

1. Remove plug from L.H side of machine
2. Remove 1/8" BSP plug
3. Rotate roller so that hole is at bottom (the oil level should then be at bottom of hole)

To top up oil level:

1. Screw fitting, and hose into this hole and rotate roller about 90° (quarter turn)
2. Pour oil into hose and leave for a few minutes to allow oil to settle
3. Rotate roller so that hole is at bottom again and allow excess oil to drain from hose
4. Remove fitting and hose and replace plug

RELIEF VALVE SETTINGS

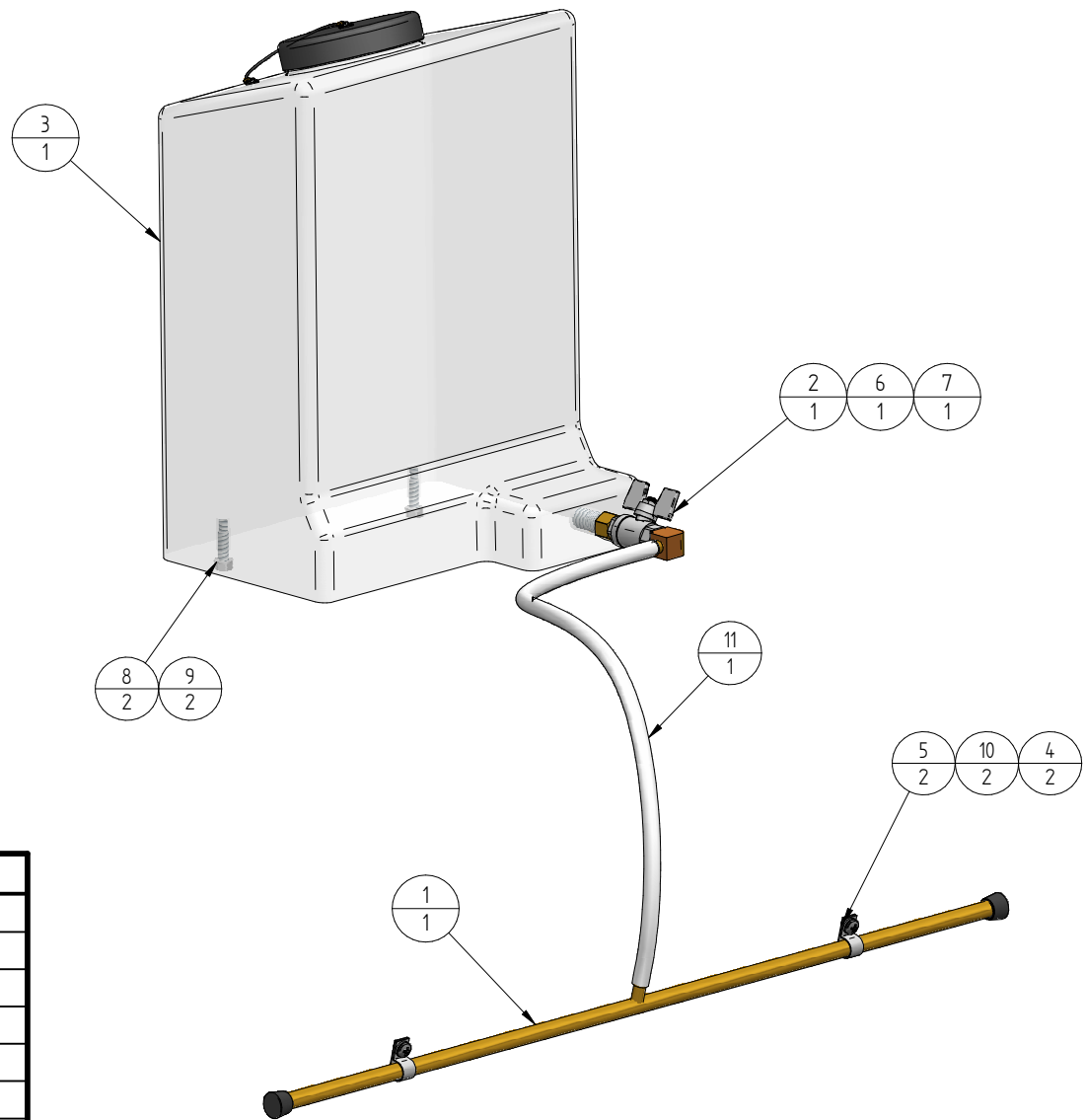
To check relief valve settings, disconnect both hoses from hydraulic motor. Plug end of one hose and fit pressure gauge to other hose. Start machine with forward – reverse lever in neutral, and engine at full set revs (3,000 rpm). Move lever gradually in one direction and watch pressure gauge [**This should reach 210 bar (3045 psi)**]. This should indicate maximum pressure generated. If no reading shows, move lever in opposite direction. Reverse process for reading other relief valve setting.

To check the boost pressure, place a test point (1/4" BSP) in the pressure line to the control in the handle. With the machine at 3000 rpm the gauge should read 20 bar (290 psi). (Test fitting QTPA0AD0404T20 available from Tracgrip)

Replacement cartridges are available from the supplier.

(See Drawing 71-0506 for hydraulic circuit)

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



Item	Part Number	Description	Quantity
1	X71-0309	Waster Spray Pipe Assy	1
2	X71-0312	Ball Valve 10Mm Topic M&F T/H	1
3	X71-0446	Water Tank Assy	1
4	6SM06MT008PQ	Machine Screw M6 x 8	2
5	X39EP907	H907, P Clip, Utilux	2
6	5TT-32000606	Adapt, Male/Female Bsp, 3/8-3/8	1
7	5TT-2020606	Elbow, 3/8 Hose - 3/8 Bspt male	1
8	6WEM08A	Washer, M8 spring ZP	2
9	6BM08X025A	Bolt, M8x25 ZP	2
10	6WEM06A	Spring Washer, M6, ZP	2
11	4-002-060	PVC Non-Toxic Tubing, 3/8" ID	780.00 mm

NAME	DATE	Tracgrip Hydraulics & Equipment Ltd	
G. NAPIER	20/04/2012	Palmerston North, New Zealand	
DESIGN	GEN	PROJECT: Pedestrian Roller	
	27/02/2012	TITLE: Water Kit	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE	REV
		A3	01
© Tracgrip Hydraulics & Equipment Ltd This drawing is issued subject to the conditions that no reproduction may be made without permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be transferred to a third party without permission.		FILE NAME	71-0445
71-0445 MANUAL Water Kit For Ped Roller.dft		SCALE:	WEIGHT:
			SHEET 1 OF 1



THIRD ANGLE PROJECTION

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

FORWARD / REVERSE LEVER

MANIPULATOR
(L-HPES-1G2GSS09)

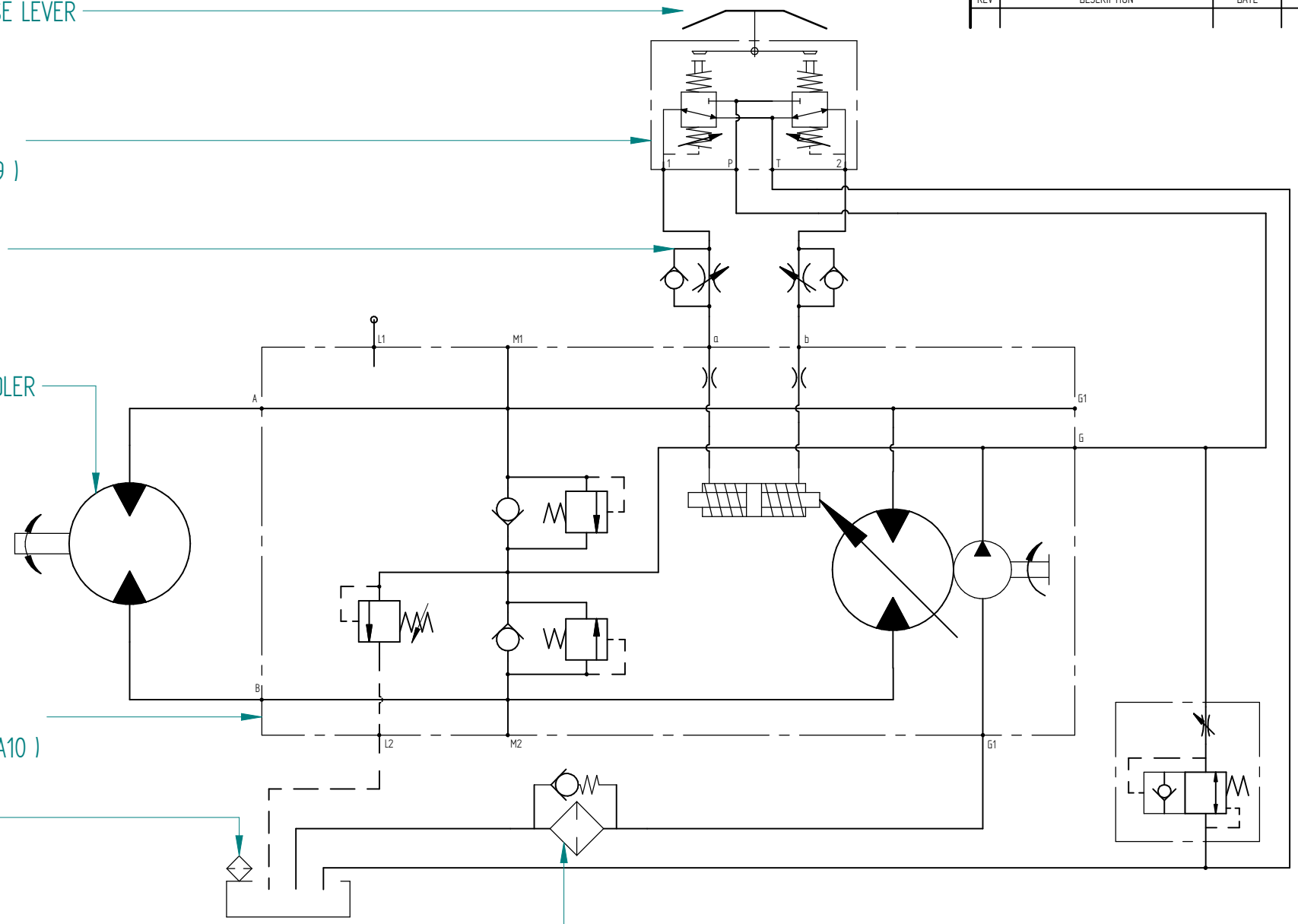
FLOW REGULATOR
WITH CHECK VALVE
(MTC-VRF01C)

MOTOR, 160cc GEROLER
(MTA-OR160C)

9cc AXIAL PUMP
(L-SMPZ09RSPGKEA10)

FILLER BREATHER

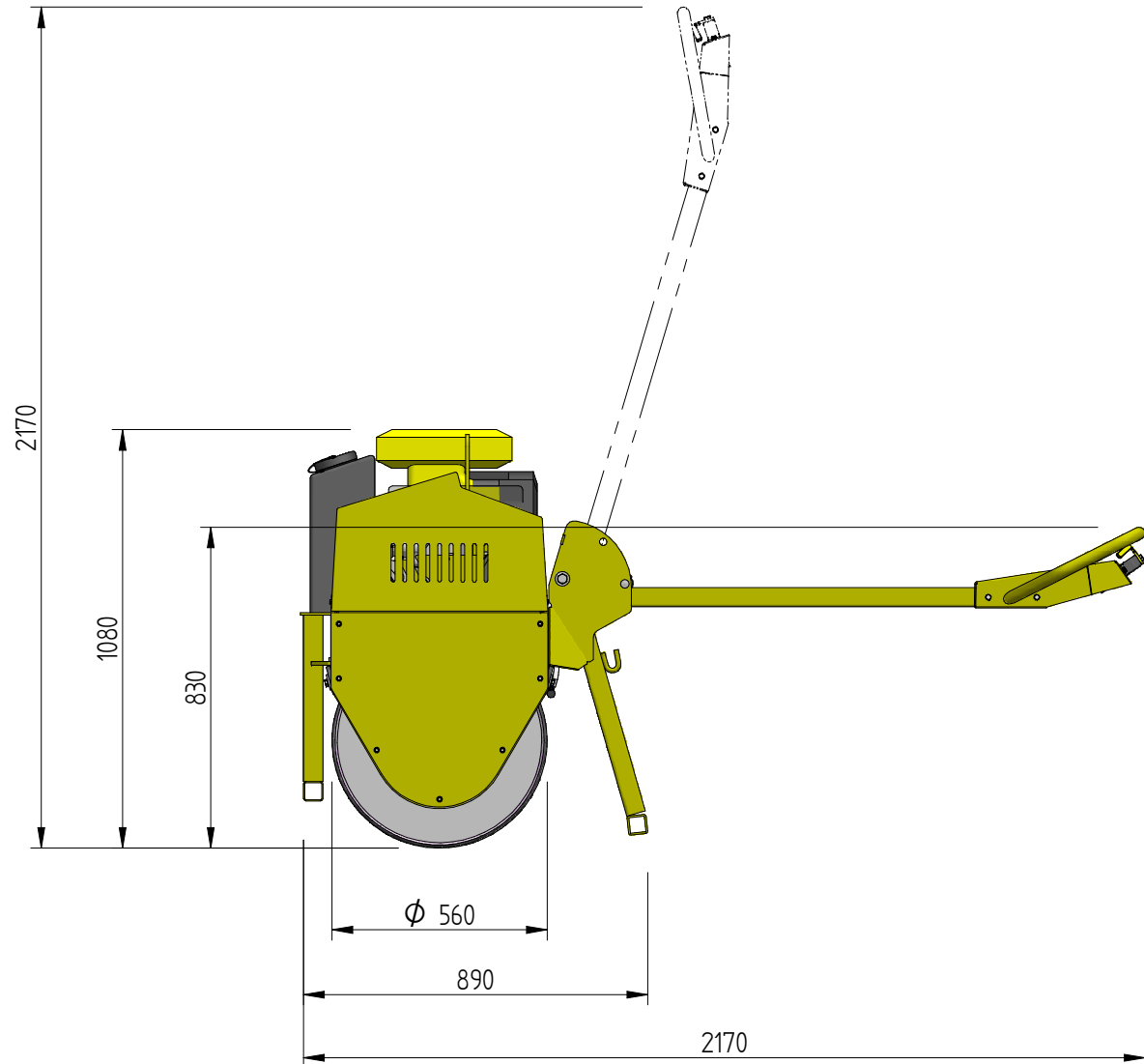
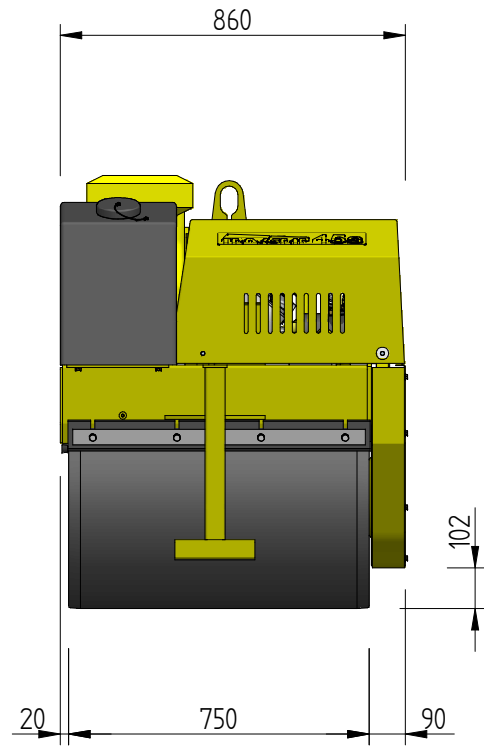
SUCTION LINE FILTER (NOMT C105ANR)
WITH FILTER ELEMENT (NOMT CS05AN)



RELIEF VALVE SET TO 210 BAR. [3045 PSI.]
BOOST PRESSURE SET TO 20 BAR. [290 PSI]

NAME	DATE	Tracgrip Hydraulics & Equipment Ltd Palmerston North, New Zealand	
DRAWN G. NAPIER	19/04/2012	PROJECT:	Pedestrian Roller 45s
DESIGN		TITLE:	Pedestrian Roller - Hydraulic Circuit
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE	DWG NO A3 71-0506
© Tracgrip Hydraulics & Equipment Ltd This drawing is issued subject to the condition that its reproduction without the written permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be made or used in any way without the written permission of Tracgrip Hydraulics & Equipment Ltd.		FILE NAME:	71-0506 Pedestrian Roller 45s - Hydraulic Circuit.dwg
SCALE:	WEIGHT:	REV 02	
		SHEET 1 OF 1	

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED

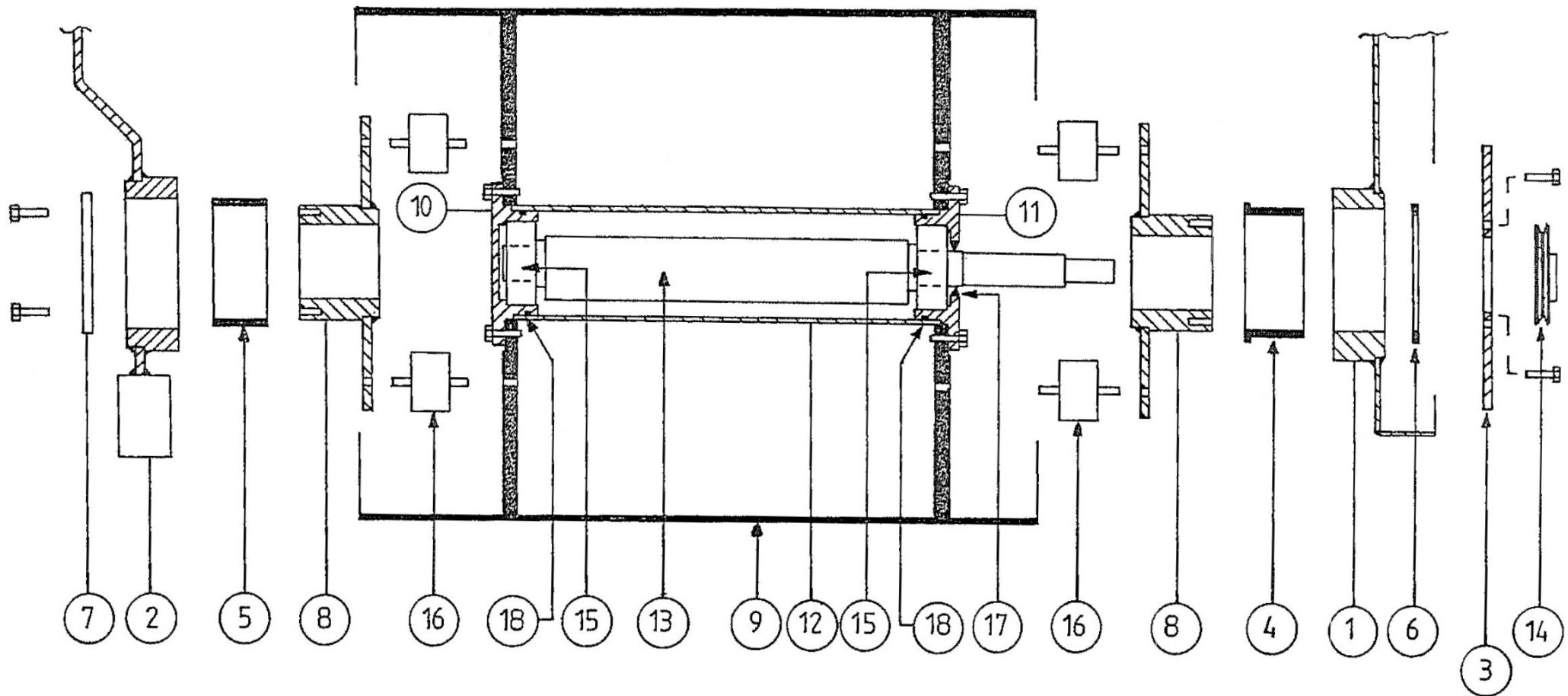


NAME	DATE	Tracgrip Hydraulics & Equipment Ltd Palmerston North, New Zealand	
DRAWN G. NAPIER	20/04/2012	PROJECT: Pedestrian Roller 45s	
DESIGN GEN	19/01/2012	TITLE: Pedestrian Roller - Dimensions	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE A3	REV 01
© Tracgrip Hydraulics & Equipment Ltd <small>This drawing is issued subject to the conditions that no reproduction or use of this drawing without the written permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be transferred to a third party without permission.</small>		FILE NAME: 71-0508 OA Dimensions.dft	SCALE: WEIGHT: SHEET 1 OF 1



THIRD ANGLE PROJECTION

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



Item	Part Number	Description	Quantity
1	71-225	L.H. side plate assembly	1
2	71-222	R.H. side plate assembly	1
3	X71-169	Sprocket 70T x 1/2" pitch	1
4	X71-170	Bearing	1
5	X71-170A	Bearing	1
6	X71-171	Thrust Washer	1
7	71-231	Cap	1
8	X71-180	Flange Assembly	2
9	X71-181	Roller Drum	1

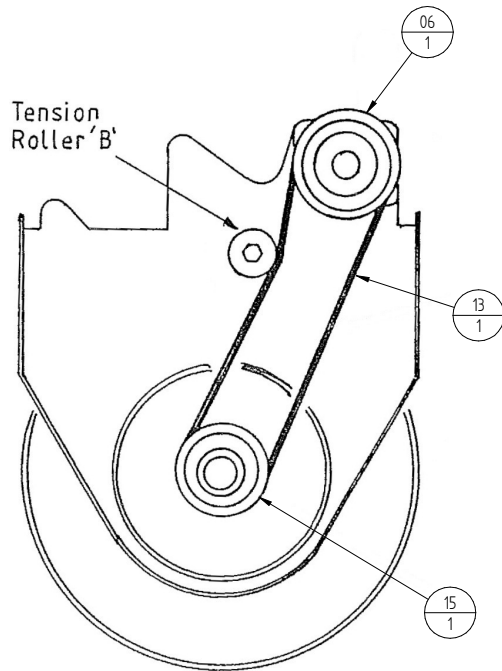
Item	Part Number	Description	Quantity
10	X71-182	Housing	1
11	X71-183	Housing	1
12	X71-184	Tube, PVC Non-Toxic, 0.375" ID	1
13	X71-185	Eccentric Vibrator Shaft	1
14	X71-372	Pulley, BL118 c/w 25mm Bush & Rt/Pl	1
15	X71-317	Cylindrical roller bearing NJ 2308-PC/C3	2
16	X71-329	Rubber Buffer M195-60	12
17	X71-318	Oil Seal 40 x 62 x 7	1
18	2-70-4-425	O'ring 4 1/4" I.D. x 1/8" section	2

NAME	DATE	Tracgrip Hydraulics & Equipment Ltd Palmerston North, New Zealand
G. NAPIER	20/04/2012	
PROJECT:	Pedestrian Roller 45s	
TITLE:	Roller and Vibrator Assy	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS	SIZE DWG NO	REV
	A3 71-0509	01
© Tracgrip Hydraulics & Equipment Ltd This drawing is issued subject to the conditions that no reproduction may be made without permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing or reproduction thereof shall be transferred to a third party without permission.	FILE NAME: 71-0509 Exploded Drum Assy.dwt	
SCALE:	WEIGHT:	SHEET 1 OF 1

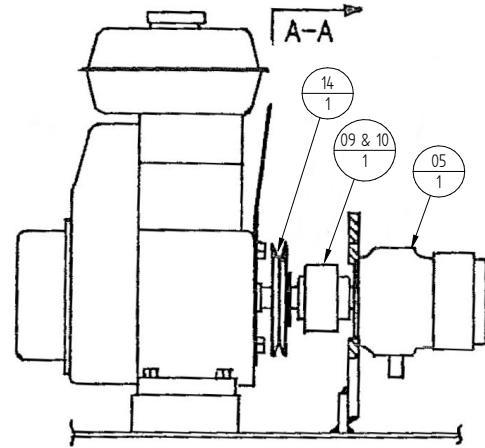


THIRD ANGLE PROJECTION

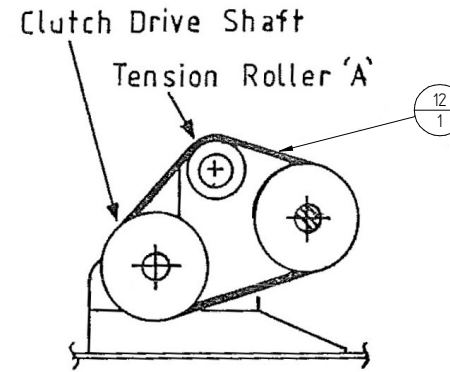
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



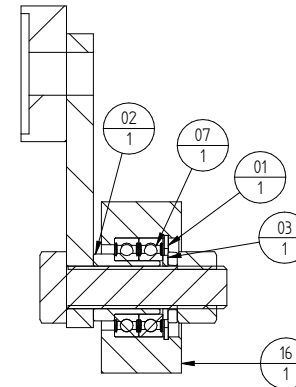
SIDE VIEW ON DRIVE TO VIBRATOR SHAFT



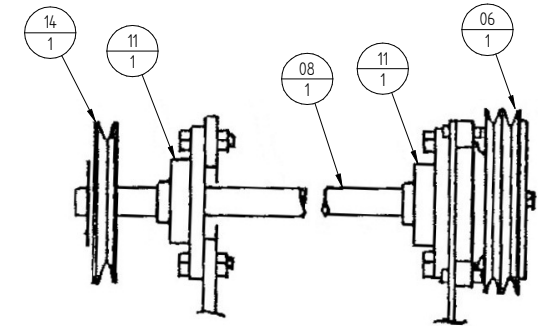
SIDE VIEW ON PUMP



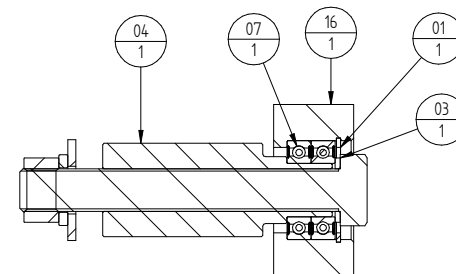
SECTION A-A



TENSION ROLLER 'A'



CLUTCH DRIVE SHAFT



TENSION ROLLER 'B'

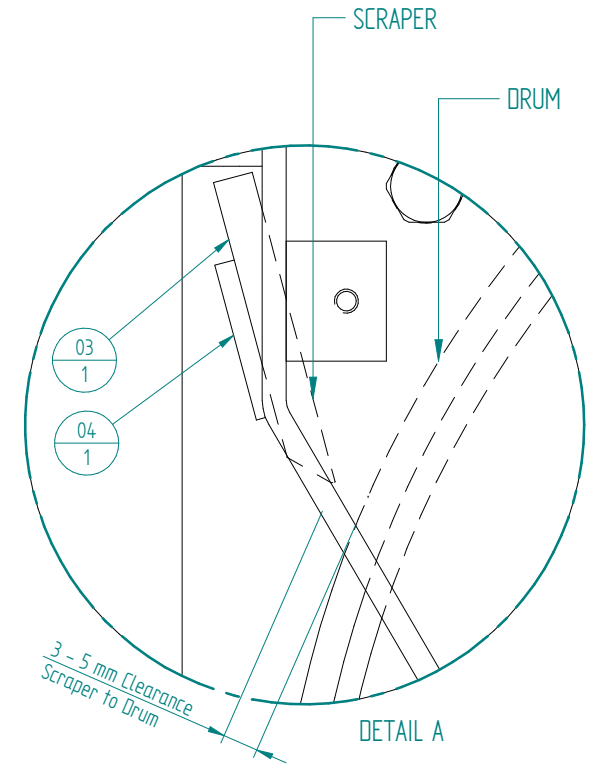
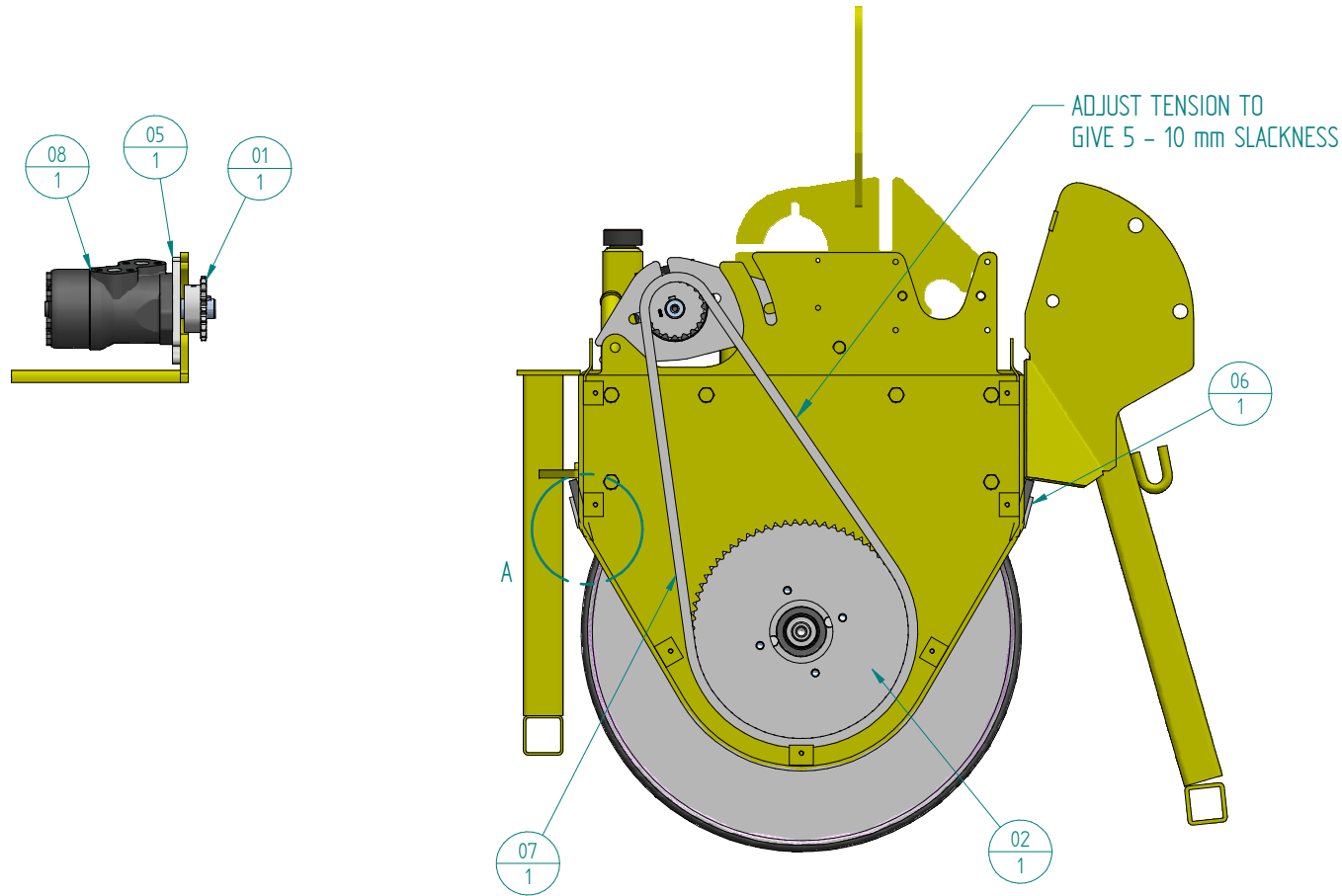
Item	Part Number	Description	Quantity
1	6CJM038	Circlip, internal 38mm bore	2
2	71-0499	Spacer	1
3	71-0500	Idler Washer	2
4	71-0502	Idler Arm	1
5	L-SMPZ09RSPGKEA10	9cc Hydraulic Pump	1
6	UMA-6AX-12V	Clutch, 12VDC	1
7	X39B-61904-2RS1	Bearing, 20x37x9	4
8	X71-0162	Shaft	1
9	X71-0175	Coupling for pump	1
10	X71-0176	Coupling for Engine	1
11	X71-0331	Flange bearing unit FL2020 c/w Bearing UC205 D1	2
12	X71-0332	V Belt B30K	1
13	X71-0333	V Belt A50K	1
14	X71-0372	Pulley 'B' Section BL118 c/w Bi-lock bush BLB10250	2
15	X71-0373	Pulley 'B' Section BL106 c/w Bi-lock bush BLB1025	1
16	X71-0497	Idler Pulley	2

NAME	DATE	Tracgrip Hydraulics & Equipment Ltd	
DRAWN: G. NAPIER	20/04/2012	Palmerston North, New Zealand	
DESIGN		PROJECT: Pedestrian Roller 45s	
		TITLE: Belt Drive to Eccentric Shaft	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE: A3	REV: 01
© Tracgrip Hydraulics & Equipment Ltd. This drawing is issued subject to the condition that no reproduction or use of this drawing or any part thereof shall be made without the prior written permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be transferred to a third party without permission.		FILE NAME: 71-0510 Belt Drive to Vibrator Shaft.dwg	
SCALE:	WEIGHT:	SHEET 1 OF 1	



THIRD ANGLE PROJECTION

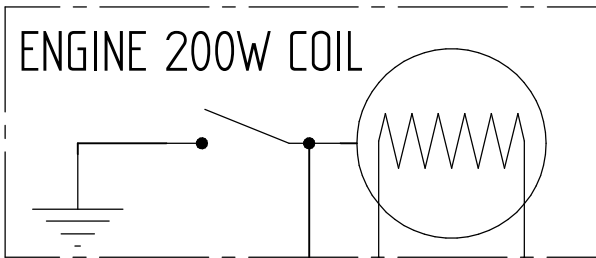
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED



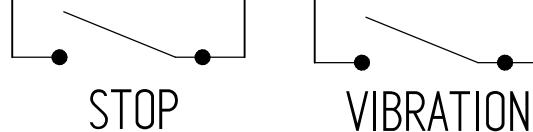
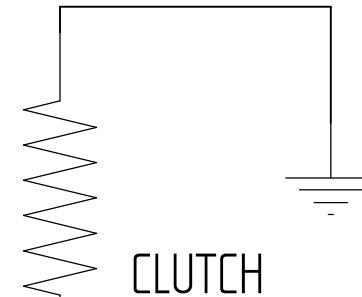
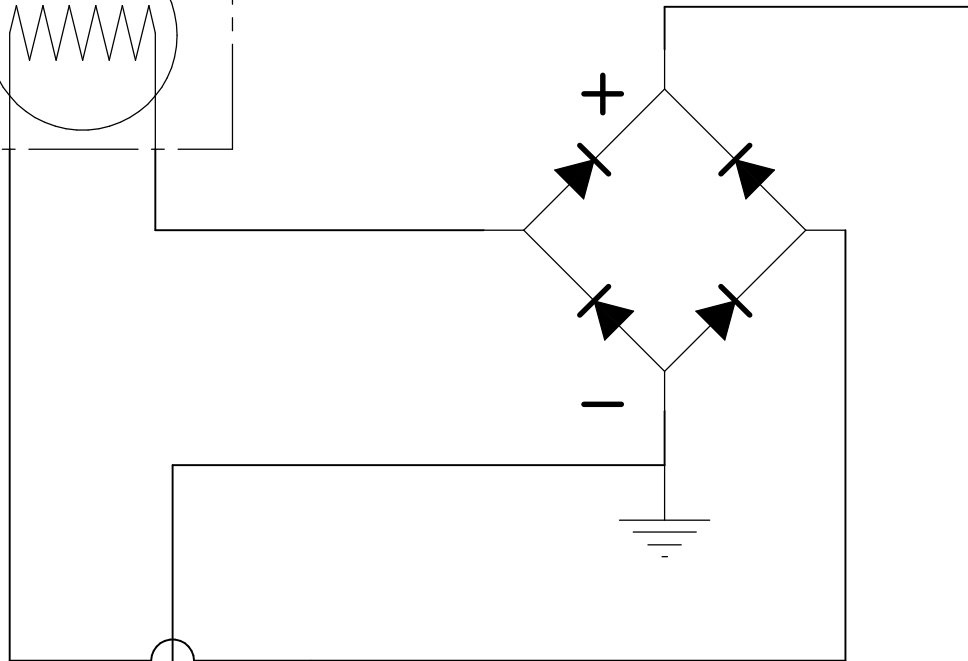
Item	Part Number	Description	Quantity
1	X71-168	Sprocket 19 T x 1/2" pitch	1
2	X71-169	Sprocket 70 T x 1/2" pitch	1
3	X71-0189a	Scraper	2
4	X71-0190	Front Support Bar	1
5	71-232	Motor mounting plate	1
6	X71-0319	Rear Support Bar	1
7	X71-374	Chain 1/2" pitch 116 links c/w Joining link 1/2" pitch	1
8	MTA-OR160C	Hydraulic motor	1

NAME	DATE	Tracgrip Hydraulics & Equipment Ltd	
DRAWN: G. NAPIER	20/04/2012	Palmerston North, New Zealand	
DESIGN		PROJECT: Pedestrian Roller 45s	
		TITLE: Chain Drive and Scraper	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE: A3	DWG NO: 71-0511
© Tracgrip Hydraulics & Equipment Ltd. This drawing is issued subject to the conditions that any reproduction or use without the written permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be transferred to a third party without permission.		FILE NAME: 71-0511 Chain Drive.dwg	REV: 01
SCALE:	WEIGHT:	SHEET 1 OF 1	

REV	DESCRIPTION	DATE	APPROVED



71-305 BRIDGE RECTIFIER



NAME		DATE		Tracgrip Hydraulics & Equipment Ltd	
DRAWN		20/04/2012		Palmerston North, New Zealand	
DESIGN				PROJECT: Pedestrian Roller 45s	
				TITLE: Electrical Circuit	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS		SIZE	DWG NO	REV	
		A3	71-0513	01	
© Tracgrip Hydraulics & Equipment Ltd <small>This drawing is issued subject to the condition that its reproduction or use without the permission of Tracgrip Hydraulics & Equipment Ltd and neither the drawing nor reproduction thereof shall be transferred to a third party without permission.</small>		FILE NAME: 71-0513 Electrical System.dwg			
SCALE:		WEIGHT:		SHEET 1 OF 1	

