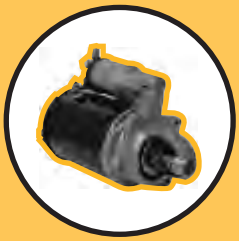
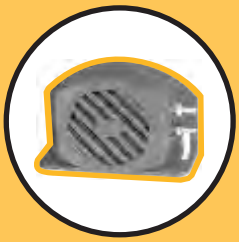
Power Products Handbook





PART 7
FORKLIFT

Forklift Starters, Alternators and Accessories

PART 7 FORKLIFT

CONTENTS

STARTERS & ALTERNATORS TO SUIT:

Bobcat
Case
Caterpillar
Clark
Crown
Daewoo
Fantuzzi
Hydralada
Hyster
International
John Deere
Komatsu
Lees
Linde
Manitou
Massey Ferguson
Mitsubishi
Nissan
Omega
Raymond
Samsung
Sumitomo
Taylor
TCM
Towmotor
Toyota
Yale
ACCESSORIES

KEY SYMBOLS

2(0)	2 Mount Holes Unthreaded
2(2)	2 Mount Holes Threaded
A:	Nose Cone Spiggot diameter
B:	Pre-mesh pinion measurement
16	Number of Teeth on Pinion, Direction of Rotation

Alternators

ALT 113600

BOBCAT
12V 90Amp
Suits Kubota Engine

A:40 *B:13* *C:58mm*

ALT 110959

BOBCAT
12V 55Amp
Suits Kubota Engine

A:77 *B:52mm*

ALT 111232

CATERPILLAR
12V 140Amp
Suits Caterpillar Engine

B:15 *C:101mm*

ALT 110508

CATERPILLAR, CLARK, HYSTER
12V 78Amp
Suits Caterpillar, Continental, Perkins Engines

B:51mm

ALT 110075

CLARK, HYSTER
12V 60Amp
Suits Continental, Perkins

A:78 *B:51mm*

ALT 110724

CROWN, DAEWOO
12V 61/74Amp
Suits Daewoo Engine

B:51mm

ALT 111170

DAEWOO
12V 65Amp
Suits Daewoo Engines

C:80mm

Alternators

ALT 991031

FANTUZZI
24V 80Amp
Suits Deutz, Volvo Engine

B:56mm

ALT 111048

KOMATSU
12V 40Amp
Suits 4D95 Engine

A:44 *B:24mm*

ALT 996001

KOMATSU
24V 25Amp
Suits 6D95 Engine

C:68mm

Alternators

ALT 110881

LINDE
12V 65Amp
Suits Deutz Engine

A:91 *B:56*

ALT 111902

LINDE
12V 90Amp
Suits Deutz Engine

B:56

ALT 111356

LINDE
12V 70Amp
Suits Perkins Engine

A:44 *B:11* *C80mm*

ALT 111363

LINDE
12V 70Amp
Suits Perkins Engine

A:36 *B:11* *C:80mm*

ALT 111072

LINDE
12V 70Amp
Suits Renault Diesel Engine

A:50 *B:57* *C65mm*

ALT 111477

LINDE
12V 90Amp
Suits VW Industrial
Diesel Engine

A:40 *B:14* *C61mm*

ALT 110802

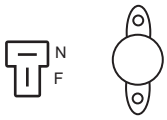
MITSUBISHI
12V 65Amp
Suits 4G33, 4G52, 4G54,
4G64 Engine

A:35 *B:13* *C:78mm*

Alternators

ALT 110128

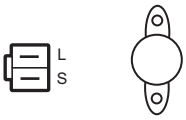
NISSAN, TCM
12V 35Amp
Suits H20, J15, A15, Z24, H30 Engines



A:42 B:13 C:80mm

ALT 112068

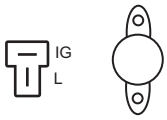
NISSAN, TCM
12V 35Amp
Suits H20, H25 Engines



A:42 B:13 C:81mm

ALT 110564

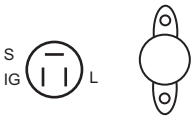
TOYOTA
12V 40Amp
Suits 2J, IZ, 3F



A:48 B:20 C:67mm

ALT 110629

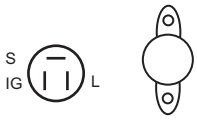
TOYOTA
12V 35Amp
Suits 5K, 4Y, V1512, 4P



A:43 B:24mm

ALT 111018

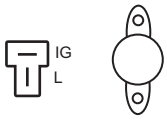
TOYOTA
12V 50Amp
Suits IDZ, IZ, IIZ, S, 3F, 2DZ



A:46 B:20 C:67mm

ALT 111048

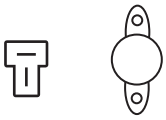
TOYOTA
12V 40Amp
Suits V1502, 4P, 4Y



A:44 B:24mm

ALT 996198

TOYOTA
24V 20Amp
Suits IZ, IIZ



Alternators

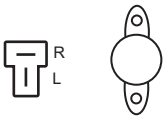
ALT 110508

YALE
12V 78Amp
Suits 1974 → Delco System

B:51mm

ALT 111495

YALE
12V 40Amp
Suits FE, HA, XA Engines



A:42 *B:13* *C:81mm*

Starters

STR 11477

BOBCAT
12V
Suits Kubota engine

11

STR 110436

CATERPILLAR
12V 42MT
Suits Caterpillar 3208 engine

12

3(0) A:92 B:48mm

STR 110572

CATERPILLAR
12V 1.2kW
Suits Mitsubishi 4G63, 4G64 engine

10,11

2(0) A:77 B:18mm

STR 110590

CATERPILLAR
12V 20MT, 22MT, 27MT, 28MT
Suits Continental 427 engine

10

3(0) A:89 B:45mm

STR 112534

CATERPILLAR
12V 2.0kW
Suits Perkins engine

9

2(0) A:74 B:18mm

STR 11478

CATERPILLAR
12V 10MT
Suits Perkins 4-236

10

3(0) A:89mm

STR 11479

CATERPILLAR
12V 10MT
Suits Caterpillar 1404 engine, Continental F-227 engine

10

3(0) A:89mm

Starters

STR 11480

CATERPILLAR
12V
Suits Caterpillar 1404 engine, Continental engine

10

STR 110292

CLARK
12V 1.1kW
Suits Mitsubishi engine

8

2(0) A:77 B:18mm

STR 110468

CLARK
12V oilsealed
Suits Waukesha, Continental engine

9

2(0) A:89 B:20mm

STR 110572

CLARK
12V 1.2kW
Suits Mitsubishi 4G64 engine

10,11

2(0) A:77 B:18mm

STR 111222

CLARK
12V 2.8kW oil sealed
Suits Perkins engine

10

3(0) A:89 B:19mm

STR 111224

CLARK
12V 4.0kW oil sealed
Suits Perkins 6-354

10

3(0) A:89 B:46mm

STR 113189

CLARK
12V 2.5kW

11

3(0) A:88 B:41mm

Starters

STR 111709

CROWN, DAEWOO
12V 2.5kW
Suits Daewoo engine

9

2(0) A:95mm

STR 112344

DAEWOO
12V 2.5kW
Suits Daewoo engine

11

3(0) A:105 B:41mm

STR 11480

DAEWOO
12V
Suits Mitsubishi engine

10

STR 11481

DAEWOO
12V
Suits Daewoo engine
Replaces 9000815

8

Starters

STR 110256

HYSTER
12V 0.8kW
Suits Mazda engine

8,9

2(0) A:83mm

STR 110469

HYSTER
12V oil sealed
Suits Continental engine

9

3(0) A:89 B:49mm

STR 110472

HYSTER
12V oil sealed
Suits Perkins 4-203 engine

10

3(0) A:89 B:47mm

STR 110506

HYSTER
12V oil sealed
Suits Ford 4-172,
Continental engine

9

3(0) A:89 B:47mm

STR 110590

HYSTER
12V 2.8kW 28MT oil sealed
Suits Continental engine

10

3(0) A:89 B:45mm

STR 110602

HYSTER
12V oil sealed
Suits Perkins 4-107 engine

12

3(0) A:89 B:45mm

STR 111273

HYSTER
12V 2.5kW
Suits Mazda HA, XA engine

13

3(0) A:100 B:31mm

STR 112089

HYSTER
12V 40MT, 42MT
Suits Continental Diesel engine

11

3(0) A:92 B:47mm

Starters

STR 110154

KOMATSU
12V 0.8kW
Suits Toyota 4P engine

9

2(0) A:83mm B:33mm

STR 110155

KOMATSU
12V
Suits Nissan H20PU engine

9

2(0) A:83mm B:8mm

STR 110156

KOMATSU
12V 1.2kW
Suits Nissan D11PU engine

9

2(0) A:70mm B:20mm

STR 110256

KOMATSU
12V 0.8kW
Suits Nissan H20PU

8,9

2(0) A:83mm B:8mm

STR 110557

KOMATSU
24V 2.8kW
Suits 6D95L engine

11

2(0) A:105mm B:14mm

STR 110568

KOMATSU
12V 2.2kW
Suits 4D95S engine

9,11

2(0) A:95mm B:20mm

STR 111189

KOMATSU
12V 0.8kW
Suits Toyota 5K engine

9

2(0) A:74mm B:20mm

STR 113203

KOMATSU
24V 4.5kW
Suits 4D52 engine

11

2(0) A:105mm B:12mm

Starters

STR 110536

LINDE
12V 2.7kW
Suits Deutz engine

9

3(0) A:89 B:26mm

STR 110615

LINDE
12V 2.8kW
Suits Perkins engine

10

3(0) A:89 B:28mm

STR 111346

LINDE
12V 2.8kW
Suits Perkins engine

10

3(0) A:89 B:29mm

STR 111694

LINDE
12V 1.7kW
Suits VW industrial engine

9

2(2) A:83 B:15mm

STR 112295

LINDE
12V 1.7kW
Suits Renault Diesel engine

10/11

3(3) A:66 B:-1mm

STR 991023

MANITOU
12V 3kW
Suits Perkins engine

10

3(0) A:89 B:32mm

STR 991071

MANITOU
12V 3kW
Suits Perkins engine

10

3(0) A:89 B:32mm

Starters

STR 110182

MITSUBISHI
12V 0.9kW
Suits VA, FE, F2 Engine

8,11

2(0) A:74 B:20mm

STR 110292

MITSUBISHI
12V 1.1kW
Suits 4G33, 4G52, 4G64, 4G54 Engine

8

2(0) A:77 B:18mm

STR 110572

MITSUBISHI
12V 1.2kW
Suits 4G33, 4G52, 4G64, 4G54 Engine

10,11

2(0) A:77 B:18mm

STR 111108

MITSUBISHI
12V 1.2kW
Suits H30, Z24 Engine

9

2(0) A:83 B:8mm

STR 111272

MITSUBISHI
12V 2.2kW
Suits S4E, S4S Engine

10

2(0) A:83 B:23mm

STR 111634

MITSUBISHI
12V 1.2kW
Suits FP30 model

8

2(0) A:70 B:13mm

STR 111913

MITSUBISHI
24V 3.2kW
Suits S4E, S4S

11

2(0) A:83 B:23mm

STR 112323

MITSUBISHI
12V 5.0kW
Suits FD50 model

10

2(0) A:83 B:23mm

Starters

STR 110256

NISSAN
12V 0.8kW
Suits H20, Z24, Z20 Engine

8,9

2(0) A:83 B:8mm

STR 110386

NISSAN
12V 1.9kW
Suits SD22, SD25, SD23 Diesel Engine

9

2(0) A:83 B:10mm

STR 111108

NISSAN
12V 1.2kW
Suits H20, Z24, A15, H25, H30 Engine

9

2(0) A:83 B:8mm

STR 110256

TCM
12V 0.8kW
Suits A15, J15PU, FS2M, H20, H15 Engine

8,9

2(0) A:83 B:8mm

STR 110580

TCM
24V 4.5kW
Suits 6BB1, D500 Engine

11

3(0) A:105 B:41mm

STR 111108

TCM
12V 1.2kW
Suits H25, Z24 Engine

9

2(0) A:83 B:8mm

STR 112649

TCM
24V 4.5kW
Suits 6BB1, D500 Engine

11

3(0) A:105 B:38mm

Starters

STR 110252

TOYOTA
12V 1.0kW
Suits F, 2F, Engine

9

2(0) A:83 B:20mm

STR 110490

TOYOTA
24V 4.5kW oil sealed
Suits 2J, 2JT, IZ, IIZ Engine

11

2(0) A:90 B:16mm

STR 110507

TOYOTA
24V 4.5kW
Suits 2D, Engine

11

2(0) A:105 B:56mm

STR 110581

TOYOTA
24V 4.5kW
Suits 2H, Engine

11

2(0) A:105 B:16mm

STR 112036

TOYOTA
12V 2.5kW
Suits IDZ, 2J, IZ, IIZ, 2DZ Engine

11

2(0) A:90 B:16mm

STR 113108

TOYOTA
12V 1.4kW
Suits 3.0L, 4Y Engine

9

2(0) A:74 B:19mm

Starters

STR 110148

YALE
12V 0.8kW
Suits UA Engine

9

2(2) A:74 B:20mm

STR 110256

YALE
12V 0.8kW
Suits F2, FE, UA, VA Engine

8,9

2(0) A:83 B:8mm

STR 110292

YALE
12V 1.1kW
Suits F2 Engine

8

2(0) A:77 B:18mm

STR 111005

YALE
12V 0.8kW
Suits D5 Engine

8

2(0) A:74 B:15mm

STR 111273

YALE
12V 2.7kW
Suits HA, XA Engine

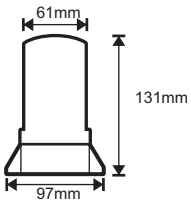
18

3(0) A:100 B:31mm

Flashing Lights

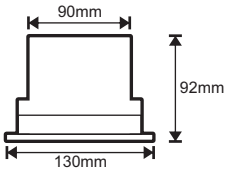
85336A

12V - 80V
Amber Strobe Lamp
with polycarbonate lense



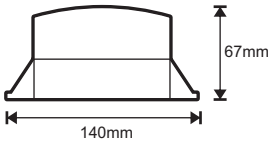
85338A

12V - 80V
Amber Strobe Lamp
with polycarbonate lense



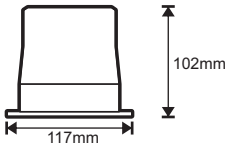
85340A

12V - 80V
Amber Strobe Lamp
with polycarbonate lense



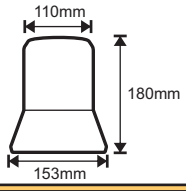
85350A

12V - 80V
Amber Microburst Strobe Lamp
with a sonically sealed
polycarbonate lense



85650A

12/24V
Optimax Amber Rotating Becon
Flange mount
Polycarbonate lense



85050A

12V
Euromax Amber Mini Light Bar
with 2 rotators and flange mount
Size 500L x 220W x 110mmH

[24V also available]

Huge range of rotating beacons and strobe flashing lamps available

Range of 48volt Globes and Horns available

Globes

H3 Halogen

DU 171406 36V 45W
DU 171407 48V 45W
DU 171378 80V 55W

Base: BA15s

DU 171408 48V 25W
DU 171409 48V 45W

Base: BA15s

DU 171410 48V 10W

Base: BAY15d

DU 171458 48V 25W

Base: BAY15d

DU 171411 48V 25/10W

Base: BA9s

DU 171412 48V 5W

Base: BA20d

DU 171413 80V 25W

Tail & Worklamps

FL30-1U

Forklift Stop, Tail, Indicator and Reverse Lamp

Size 220L X 55W X 63mmH

FL30-2U

Forklift Stop, Tail, Indicator and Reverse Lamp

Size 260L X 50W X 57mmH

MANY MORE OPTIONS AVAILABLE

WL 1100

Quartz Halogen Side Mount Flood Worklamp

Size 153 x 93mm

WL 2000-12

Supa Power Compact Quartz Halogen Flood Worklamp

Size 110 x 100mm

WL 3000-12

Twin Power Double Beam, Double Halogen Globe Flood Worklamp

Size 160 x 100mm

WL 7400-12

E Power Oval Twin Power Quartz Halogen Spot Worklamp with handle & switch

Size 160x103mmH

HL 4000

Headlamp Flasher Lamp Combination With Single Pedestal Mount

Size 155 x 210mm

WL 4500

Rubber body Quartz Halogen Flood Worklamp

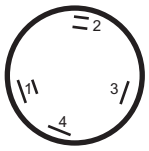
Size 120mmØ

Ignition Switches

IGS 1901

HD Ignition Start Switch
16mmØ shank
Functions
OFF, ACC, ON, GLOW, START

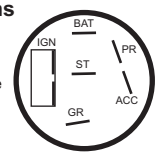
Spade Terminal Connections
1. Battery
2. Ignition
3. Glow
4. Start



IGS 22539

HD Anti-Restart Ignition Switch
w/ Yellow key
25mmØ Shank
Functions OFF, ON, START

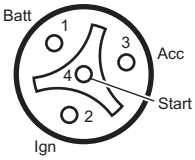
Screw on Connections
BAT. Battery
IGN. Ignition
ACC. Accessory
PR. Joins to GR on start mode
GR. Ground -
ST. Start



IGS 108016

HD Ignition Start Switch
19mmØ shank
4 stud connections
Functions OFF, ACC, ON, START

Stud Connections
1. Battery
2. Ignition
3. Accessory
4. Start



IGS 22540

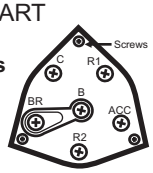
HD Anti-Restart Ignition Switch
Suits Hyster
25mmØ Shank
Functions OFF, ON, START

Screw on Connections
BAT. Battery
ACC. Accessory
IGN. Ignition
ST. Start

IGS 108008

HD Ignition Start Switch
20mmØ Shank
Functions
GLOW, OFF, ON, START

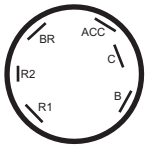
Screw on Connections
B. Battery
R1. Glow
R2. Glow
Acc. Ignition
C. Start



IGS 108013

HD Ignition Start Switch
20mmØ Shank
Functions
GLOW, OFF, ON, START
All terminals are threaded

Connections
B. Battery
BR. Ignition
Acc. Acc
R1. Glow
R2. Glow
C. Start



IGS 22547

HD Ignition Start Switch
Suits Crown
25mmØ Shank
Functions OFF, ON, START

Screw on Connections

Switches

SW 60060

12V 20Amp
ON/OFF Toggle Switch

12.5mmØ mounting stem

SW 24118

12V 15Amp
Waterproof ON/OFF
Toggle Switch

12.5mmØ mounting stem

SW 180216

45mm Mount Hole Centres
20mmØ Shank

SW 180028

20mmØ Shank
43mm mount hole centres

SW 180017

23mmØ Shank
45mm mount hole centres

SW 180211

22mmØ Shank
100mm mount hole centres

Electrical Accessories

72590

12V - 80V
Reversing Alarm
Compact, Solid State
97 Decibels

Size 99W x 63H x 40mmD

72612

12V or 24V
Reversing Alarm
Compact, Self Adjusting
77 - 102 Decibels

Size 102W x 66H x 41mmD

HN 160393

36V - 48V Horn

OD 100mm w/mount bracket
2 terminals 335 Hz

SW 24117

Universal Steering Column Mount Indicator Switch

SW 230119

Universal Lever Type Indicator Switch

SW 24101

Flexi Lever Micro Switch

Size 54 x 40 x 22mm

SW 24102

Wheel Type Micro Switch

Size 50 x 23 x 16mm

SW 24103

Lever Micro Switch

Size 50 x 30 x 16mm

SW 24104

Lever Type with Roller Micro Switch

Size 50 x 30 x 16mm