

CRANK SHAFT

— *Catalogue* —



About us

Empire group has been exporting Car, trailer, Truck and Tractor part to over 25 Countries for the last 20 Years. Empire is a High-tech Enterprise specialized development, production and sale of Auto parts.

Quality Policy

We are committed to manufacture, supply and export Auto components to the entire satisfaction of Customers. Our aim is to progress through Continual Improvement in Quality & Productivity.

This is achieved through:

- Meeting the exact requirements of Quality & Productivity consistently.
- On time delivery.
- Building a Competent Work Force.
- Setting & reviewing quality objectives in every department.

Our Machining Facility



The details of the Machinery our Manufacturing Plant accommodates is given in the table below.

Sl.No.	Process	Machine	Quantity
1.	GRINDING - CNC	NAXOS UNION (PIN)	07
		NAXOS UNION (JOURNAL)	08
		LANDIS MULTIWHEEL	01
		CYLINDRICAL GRINDING MACHINE	04
2.	GRINDING	CYLINDRICAL GRINDING MACHINE	10
3.	AUTO CYCLE WITH COPY DRESSING	NAXOS UNION (PIN)	05
		NAXOS UNION (JOURNAL)	05
4.	DRILLING	SPM MULTI SPINDLE RADIAL	03 15
5.	LAPPING	NAGEL	03
6.	HMC	MAZAK	10
7.	PRETURNING	HELLER	03
		CNC	07
8.	CRANKSHAFT INDUCTION HARDENING	INDUCTOTHERM	03
9.	MPI	MAGNAFIELD CONTROL	04
10.	CRANKSHAFT WASHING	CRANKSHAFT WASHING MACHINE	01



MAIN JOURNAL TURNING



CRANKPIN TURNING



Cross Oil Hole Drilling



CRANKPIN GRINDING



MAIN JOURNAL GRINDING



INDUCTION HARDENING



GRINDING SECTION



SUPERFINISHING



MULTI-SPINDLE DRILLING



RADIAL DRILLING



BALANCING

Our Quality Systems and Inspection Facility

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- Use of SPC for continually reducing rejection PPM Level. Present total Rejection PPM Level < 300 PPM.
- Highly experienced management & operating staff. Most of the Managerial staff is with our company for more than 15 Years.
- In-house Tool Room Facility.
- All sorts of Measuring & Testing equipment and gauges required for inspection.
- Computer Aided Multi Gauging Units.
- Millipore Testing Facility Cleanliness.
- In-House Calibration facilities and other tools in the Standard Room as follows :

Sl No.	DESCRIPTION
1.	FTS TALYSURF INTRA (CONTOUR / RADIUS MEASURING MACHINE) TAYLOR HOBSON MAKE
2.	DIGIMAR ELECTRONICS 2D HEIGHT MASTER
3.	VERNIER CALIBRATION UNIT
4.	MICROMETER CALIBRATION UNIT
5.	DIAL GAUGE CALIBRATION UNIT
6.	CARBID '0' GRADE SLIP BOX
7.	COMPARATOR STAND WITH DIAL
8.	MICRO HARDNESS TESTER
9.	SURTRONIC - 25 SURFACE FINISH TESTER (TAYLOR HOBSON MAKE)



MAGNAFLUX - CRACK DETECTION



MULTI GAUGING - MB & CP DIA INSPECTION



TAYLOR HOBSON - RADIUS BLENDING INSPECTION



ELEKTRA DIGIMAR



MICRO HARDNESS TESTER



S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
1	Leyland	EOE 5501	6 CYL	F3336611/ CCJ0004	LEYLAND British Leyland U.K. 603547 400/401/402/411
2	Bedford	EOE 5502	6 CYL	302 6365	BEDFORD J6 330
3	Cummins	EOE 5503	6 CYL	3907804	Suitable for 6BT Engines
4	Isuzu	EOE 5504	4 CYL	4FC1 4FC1 - T	ISUZU DIESEL FARGO-2.0 FARGO-2.0 TD WFR-2.0 DWFR-2.0 TD FARGO-1.8
5	Isuzu	EOE 5505	4 CYL	4 JA1 4 JC1 4 JD1 NKR 54H	ISUZU DIESELNHR-2.5 DNKR-2.5 DTROOPER-2.5 DCAMPO-2.5 D
6	Isuzu	EOE 5506	4 CYL	4FA1 4FA1 - T 4FB1 4FB1 - Tvv	ISUZU PETROLWFR-1.8 DFARGO-105
7	Suzuki	EOE 5507	LJ-80 3 CYL	12221-73001 1221-78401	SUZUKI 800CC ENGINE
8	Suzuki	EOE 5508	SJ-410	12221-75101 1221-75102	SUZUKI 1000CC ENGINE
9	Suzuki	EOE 5509	4 CYL	N/A	SUZUKI 1300CC ENGINE
10	Mazda	EOE 5510	4 CYL	SL01 11 301 C	MAZDA T3500
11	Mercedes	EOE 5511	4 CYL	364.030.1102 364.030. 0702 364.030.1302 364.030.1402 364.030. 1401 364.030.1601 364.030.1301 364. 030.1201	MERCEDES OM 364 INTEGRATED COUNTER WEIGHTS
12	Mercedes	EOE 5512	4 CYL	314.030.62.02 314.030. 60.02 314.030.55.02 314.030.33.02 314. 030.49.02	MERCENDES OM 314 KNURLLED
13	Mercedes	EOE 5513	4 CYL	314.030.61.02 314.030. 52.02 314.030.32.02 314.030.20.02 314.030. 55.01 314.030.50.02	MERCEDES OM 314 SCROLLED
14	Mercedes	EOE 5514	4 CYL	N/A	MERCEDES OM 616

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15	Mercedes	EOE 5515	6 CYL	352.030.32.02 352.030.34.03 352.030.56.01	MERCEDES OM 352 911 B - SCROLLED (INTEGRATED COUNTER WEIGHTS)
16	Mercedes	EOE 5516	6 CYL	352.030.34.02 352.030.15.02 352.030.58.02 352.030.68.02 352.030.74.02	MERCEDES OM 352 911 B - SCROLLED COUNTER WEIGHT TYPE
17	Mercedes	EOE 5517	6 CYL	352.030.64.02 352.030.37.02 352.030.58.02 352.030.70.02 352.030.46.02 352.030.80.02	MERCEDES OM 352 911 C - KNURLED (INTEGRATED COUNTER WEIGHTS)
18	Mercedes	EOE 5518	6 CYL	352.030.37.02 352.030.78.02 352.030.58.02 352.030.70.02 352.030.09.02	MERCEDES OM 352 911 CKNURLED COUNTER WEIGHT TYPE
19	Mercedes	EOE 5519	6 CYL	366.031.12.01 366.030.06.02 366.030.16.02 366.030.15.02 366.030.14.02	MERCEDES OM 366 INTERGRATED COUNTER WEIGHTS
20	Mercedes	EOE 5520	6 CYL	321.030.12.02 252.303.100.104 252.303.200.103	MERCEDES OM 312/321 SCROLLED
21	Mercedes	EOE 5521	6 CYL	321.030.1202	MERCEDES OM 321 KNURLED INTEGRATED COUNTER WEIGHT
22	Mercedes	EOE 5522	6 CYL	N/A	MERCEDES OM 321 KNURLED BOLTED COUNTER WEIGHT TYPE
23	Mercedes	EOE 5578		20 0503 35500, 20 0503 35502, 20 0503 35501 20 0503 35503	OM 355
24	Mitsubishi	EOE 5523	4 CYL	4G 63	mitsubishi colt t-120 m - 111 JAPAN
25	Mitsubishi	EOE 5524	4 CYL	ME013667/4D31 /4D30	MITSUBISHI CANTER M-111, JAPAN FE 444 (11-220)
26	Mitsubishi	EOE 5525	6 CYL	N/A	MERCEDES OM 321 SCROLLED BOLTED COUNTER WEIGHT

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S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
26	Peugeot	EOE 5526	6 CYL	504	PEUGEOT 504 DIESEL ENGINE
27	Shaktiman	EOE 5527	6 CYL	51.02101.1013 51.02101.0013	SHAKTIMAN
28	Tata	EOE 5528	4 CYL	T-207	TATA 207
29	Tata	EOE 5529	4 CYL	T-407	TATA 407
30	Tata	EOE 5530	4 CYL	T-609/T-709	TATA 609/TATA 709
31	Tata	EOE 5531	6 CYL	T-1210	TATA 1210 S/TATA 1210 SE
32	Tata	EOE 5532	6 CYL	T-1612	ATA 1612/TATA 1313/TATA 1510
33	Deutz	EOE 5533	1 CYL	0223 3635 FIL 511	7.7 H.P. COUNTER WEIGHT OPTIONAL
34	Deutz	EOE 5534	4 CYL	0415 2646 0292 9338 F4L 912	WITH CENTER GEAR SEPARATE COUNTER WEIGHT TYPE AVAILABLE WITH TIMING GEAR ALSO
35	Deutz	EOE 5535	3 CYL	0415 2646 0292 9338 210 556 2136928 F3L 912	HA 3 SEPARATE COUNTER WEIGHT TYPE AVAILABLE WITH TIMING GEAR ALSO
36	Deutz	EOE 5536	4 CYL	0415 2903 0213 8819 0292 9340 F4L 912	WITHOUT CENTER GEAR. HA 4 SEPARATE COUNTER WEIGHT TYPE AVAILABLE WITH TIMING GEAR ALSO
37	Deutz	EOE 5537	6 CYL	0415 1011 0292 9342 F6L 912	HA 6 SEPARATE COUNTER WEIGHT TYPE AVAILABLE WITH TIMING GEAR ALSO
38	Deutz	EOE 5538	6 CYL	0415 1011 0292 9342 F6L 912	HA 6 SEPARATE COUNTER WEIGHT TYPE AVAILABLE WITH TIMING GEAR ALSO

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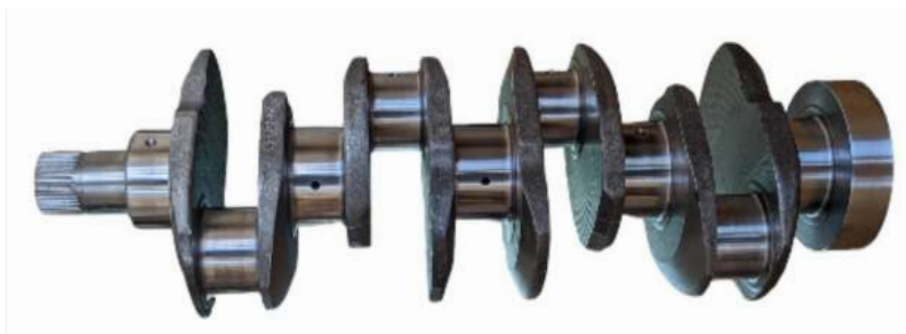
S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
39	EICHER	EOE 5539	2 CYL	N/A	EICHER 298 CRANKSHAFT
40	EICHER	EOE 5540	3 CYL	N/A	EICHER 398 CRANKSHAFT
41	ESCORT/ URSUS	EOE 5541	2 CYL	42.03.105.0	335/C-330
42	ESCORT/ URSUS	EOE 5542	4 CYL	46.40.399.0	C-360 With 6 Holes at Flange End
43	FORD	EOE 5543	3000/3600 /3 CYL	C5NE-6303- R ECNN- 63038-A	FORD 3000/3600 SERIES STROKE 4.2
44	INTERNATIONAL HARVESTER	EOE 5544	3 CYL	55570540R11	275 DI/T4 SERIES
45	INTERNATIONAL HARVESTER	EOE 5545	3 CYL	5557053R11	INTERNATIONAL 265 DI ENGINE
46	INTERNATIONAL HARVESTER	EOE 5546	4 CYL	3110995R91	INTERNATIONAL HARVESER 444 ENGINE 444-4DT- 466 ENGINE 466 ENGINE
47	JOHN DEERE	EOE 5547	940/1020/1030/ 1040/1120/1130/ 1140 3 CYL	AT-18031/T-23516/RE- 47637/RE-46896	3.164, 3.179, 3.152 ENGINES
48	JOHN DEERE	EOE 5548	3030/3040/3120/ 3130/3140/3640/ 4040S/ 6 CYL	AT-22562/T-23266	6.303/6.329/6.359/6059 ENGINES AT-18031/T-23516/RE- 47637/RE-46896 940/1020/1030/ 1040/1120/1130/ 1140 3 CYL 3.164, 3.179, 3.152 ENGINES
49	PERKINS	EOE 5549	3.152/D3.152 3 CYL	31312419/31312436 /31312401/84402/ ZZ 90116/ZZ 90084 U5BG0031/ ZZ90148/026005M1/ 3637454M91/ 21026005	KEYED NOSE ROPE SEAL MF 35, 135, 148, 254, 230, 240,250, 255, 350, 353, 355, 360, 363, 550 PERKINS : A3,152, AD 3.152 MF INDUSTRIAL 20B, 20D, 20E, 20F,30E, 30H, 40 MF LANDINI C 4500, R-DT5500, CPC 1100, P001.01, SA 2004 940/1020/1030/ 1040/1120/1130/ 1140 3 CYL 3.164, 3.179, 3.152 ENGINES
50	PERKINS	EOE 5550	3.152/3 CYL	84399/31312437	SPLINED NOSE ROPE SEAL ENGINES

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S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
51	PERKINS	EOE 5551	3.152/D3.152/ 3 CYL	ZZ90148/ZZ90116 /3638309M91/84402	PERKINS 3.152 ROPE SEAL WITH COUNTER WEIGHT, GEAR, WASHERS & SCREW
52	PERKINS	EOE 5552	3.152 3 CYL	31312701/31312707/ 94458/94464/ 026053M/ZZ90078/ U5BG0027/ZZ90150/ 637399M91/ 3637410M91/ Zz90122	KEYED NOSE LIP SEAL MF 135, 148, 230, 240, 250, 254, 254S, 255, 550 MF INDUSTRIAL 20B, 20D, 20E, 20F, 30E, 30H, 40 PERKINS AD 3.152 MF LANDINI C 4500, R-DT5500, CPC 1104, P001.05, SA 2001
53	PERKINS	EOE 5553	3.152 3 CYL	31312702/31312704/ 94463/94459/ Zz90117/	SPLINED NOSE LIP SEAL MF LANDINI C 4500, R-DT5500, CPC 1104, P001.05, SA 2001
54	PERKINS	EOE 5554	3.152 3 CYL	N/A	KEYED NOSE LIP SEAL WITH COUNTER WEIGHT GEAR, WASHERS & SCREW
55	PERKINS	EOE 5555	4.203/D4.203/ 4 CYL	31315138/31315145/ 31315148/31315167/ 31315184/84407/ 85811/92484/ 92485/26008M1/ 742742M91/ZZ90121/ U5BG0017/ U5BG0028/ 3637399M91	KEYED NOSE ROPE SEALMF 65, 158, 165, 765, 155, 650PERKINS A4,192, A4.203,AD4.203MF INDUSTRIAL 50MF LANDINI R-DT 6000, CPC 1104, P001.05, SA 2001
56	PERKINS	EOE 5556	4.203/D4.203/ 4 CYL	N/A	SPLINED NOSE/ROPE SEAL
57	PERKINS	EOE 5557	4.203/D4.203 4 CYL	31315182/31315184/ 94454/94441/94455/ 026032M1/026033/ ZZ90111/026032M1/ 742344M91/94455/ 94441/3637458M91	KEYED NOSE LIP SEAL MF-65, 158, 165, 765. MF INDUSTRIAL 50 MF LANDINI RDT6000PERKINS A4.203
58	PERKINS	EOE 5558	4.203/D4.203/ 4 CYL	313151811	SPLINED NOSE/LIP SEAL
59	PERKINS	EOE 5559	4.248/4.236/ 4 CYL	31315911,31315912, 84422,85721, ZZ90093, 736829M91, ZZ90108, 3637789M91	SPLINED NOSE ROPE SEAL LIGHT (WEIGHT) MF1 68, 175, 265, 274, 274SK, 275, 285, 284-4S, 365, 375, 377, 383, 387, 565, 575, 675, 3050 MF LANDINI R-DT7500, R-DT6550, C6830, RDT7550, R-DT6550,C6830,R-DT7550,RDT7530F PERKINS 4.236 MF COMBINES 440, MF INDUSTRIAL50, 50B, 50E/EX,50H/HX \S\ SERIES/td>
60	PERKINS	EOE 5560	4.248/4.236/ 4 CYL	U5BG0026/31315664	SPLINED NOSE ROPE SEAL (LIGHT WEIGHT) 3 HOLES FOR PULLEY FITTING ON NOSERDT7550, R-DT6550,C6830,R-DT7550,RDT7530F PERKINS 4.236 MF COMBINES 440, MF INDUSTRIAL50, 50B, 50E/EX, 50H/HX \S\ SERIES/td>

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S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
61	PERKINS	EOE 5561	4.248/4.236/ 4 CYL/td>	31315871/31315631/ 31315641/31315664/ 85821/94433/ 94434/26042/ 26046/ U5BG0052/ ZZ90122/ ZZ90082/ 736829M91/ 741750M1	SPLINED NOSE LIP SEAL (LIGHT WEIGHT) MF 158, 175, MF LANDINI RDT7500 440, MF INDUSTRIAL50, 50B, 50E/EX, 50H/HX \S\ SERIES/td>
62	PERKINS	EOE 5562	4.248/4.236/ 4 CYL	N/A	SPLINED NOSE LIP SEAL (LIGHT WEIGHT)3 HOLES FOR PULLEY FITTING
63	PERKINS	EOE 5563	4.248/4.236/ 4 CYL	N/A	SPLINED NOSE LIP SEAL (LIGHT WEIGHT) 3 HOLES FOR PULLEY FITTING LONG NOSE
64	PERKINS	EOE 5564	4.248/4.236/100.4 T/4 CYL	ZZ90145/ZZ90218 PHASER 180 TI ENG. TURBO	SPLINED NOSE KEY WAY LIP SEALS 3 HOLES FOR PULLEY FITTING LONG NOSE.
65	PERKINS	EOE 5565	6.305	31323146/84433/ 026020N	KEYED NOSE ROPE SEAL
66	PERKINS	EOE 5566	6.305	31321345/84432/ 026021N	KEYED NOSE ROPE SEAL
67	PERKINS	EOE 5567	6.354	31323261/ 31323262 /94468/ 94460/94443/ ZZ90090/ U5BG0048/ 742160M1/ 742161M1	SPLINED NOSE LIP SEAL 1/3 HOLES TYPE MF 1100, 1014, 1200 MF COMBINES 500, 510, 515, 520, 525, 620, 625 MF LANDINI R-DT9500, R-DT10000, R-DT100005 PERKINS A6.354, PERKINS A6.354.1 A6.354.2
68	PERKINS	EOE 5568	6.354	31322361/ 31322316/ 31322317/ 31322363/ 31322364/ 68063/ 85727/68063/ ZZ90089/ U5BG0045/ 742150M1/ 736902M1	SPLINED NOSE ROPE SEAL 1/3 HOLE TYPE MF 1100, 1014, 1200 MF COMBINES 500, 510, 515, 520, 525, 620, 625 MF LANDINI R-DT9500, R-DT10000, R-DT10005 PERKINS A6.354, PERKINS A6.354.1, A6.354.2, A6.372.1 A6.354.1 A6.354.2
69	PERKINS	EOE 5569	6 Cyl P6.354-4	05B60037 2290C113 3637408M91	KEYED NOSE ROPE SEAL (1/3 HOLE FOR PULLEY FITTING)MF 399,699,1014,1114, 1134,1250,2620,2640,2645 MF LANDINI R-DT1000, R-DT100005, R-DT12500, RDT1300 MK 11, R-DT14500 MK 11 A6.354.1, A6.354.2, A6.372.1 A6.354.1 A6.354.2
70	PERKINS	EOE 5570	6 Cyl P6.354-4	ZZ 90086 3134021 3637404M91	KEYED NOSE LIP SEAL (1/3 FOR PULLEY FITTING) MF 399, 699,1014, 1114 MF LANDINI R-DT 14500 MK 11, R-DT14500 MK 11 A6.354.1, A6.354.2, A6.372.1 A6.354.1 A6.354.2



S.NO.	VEHICLE NAME	EO REF NO.	NO. OF CYL	OEM	MODEL NO.
71	ROMANIA	EOE 5571	4 CYL	UTB 650, 10303010	Romania UTB 65 Rope Seal Type A6.354.1 A6.354.2
72	ROMANIA	EOE 5572	4 CYL	UTB 660, 10303020	Romania UTB 66 Lip Seal Type
73	SWARAJ	EOE 5573	3 CYL	735	SWARAJ Rv3
74	SWARAJ	EOE 5574	3 CYL	855	SWARAJ Rb33
75	VALTRA	EOE 5575	3 Cylinders	D836647313/1	SWARAJ Rb33
76	ZETOR	EOE 5576	3 CYL	30010301	ZETOR 3011
77	ZETOR	EOE 5577	4 CYL	40010301	ETOR 4011/5911



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